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الجامعة الأردنيـــة
كلية الدراسات العليا

التاريـــخ: / /

نموذج رقم (١٨)
اقرار والتزام بالمعايير الأخلاقية والأمانة العلمية
وقوانين الجامعة الأردنية وأنظمتها وتعليماتها
لطلبة الماجستير

أنا الطالب: مانذي زاكولد الرقم الجامعي: (8090906)

تخصص: الإدارة المتكاملة للمصادر المائية الكليـــة: العلوم.

عنوان الرسالة: Analysis of International Water Law Instruments regarding their prevailing acceptance on the case of the riparian countries of the Nile Basin.

اعلن بأنني قد التزمت بقوانين الجامعة الأردنية وأنظمتها وتعليماتها وقراراتها السارية المفعول المتعلقة باعداد رسائل الماجستير عندما قمت شخصيا" باعداد رسالتي وذلك بما ينسجم مع الأمانة العلمية وكافة المعايير الأخلاقية المتعارف عليها في كتابة الرسائل العلمية. كما أنني أعلن بأن رسالتي هذه غير منقولة أو مستلة من رسائل أو كتب أو أبحاث أو أي منشورات علمية تم نشرها أو تخزينها في أي وسيلة اعلامية، وتأسيسا" على ما تقدم فانني أتحمل المسؤولية بأنواعها كافة فيما لو تبين غير ذلك بما فيه حق مجلس العمداء في الجامعة الأردنية بالغاء قرار منحي الدرجة العلمية التي حصلت عليها وسحب شهادة التخرج مني بعد صدورها دون أن يكون لي أي حق في التظلم أو الاعتراض أو الطعن بأي صورة كانت في القرار الصادر عن مجلس العمداء بهذا الصدد.

توقيع الطالب: Mandy Zuchold التاريخ: 3/2/2011

ANALYSIS OF INTERNATIONAL WATER LAW INSTRUMENTS REGARDING THEIR PREVAILING ACCEPTANCE IN THE NILE BASIN WITH THE FOCUS ON EGYPT, ETHIOPIA AND TANZANIA

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This Thesis was Submitted in Partial Fulfilment of the Requirements for the Master's Degree of Science in Integrated Water Resources Management

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COMMITTEE DECISION

This Thesis/Dissertation (Analysis of International Water Law Instruments Regarding Their Prevailing Acceptance in The Nile Basin with the Focus on Egypt) was Successfully Defended and Approved on 18/1/2010

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"The story begins, and ends, with water.[1]"

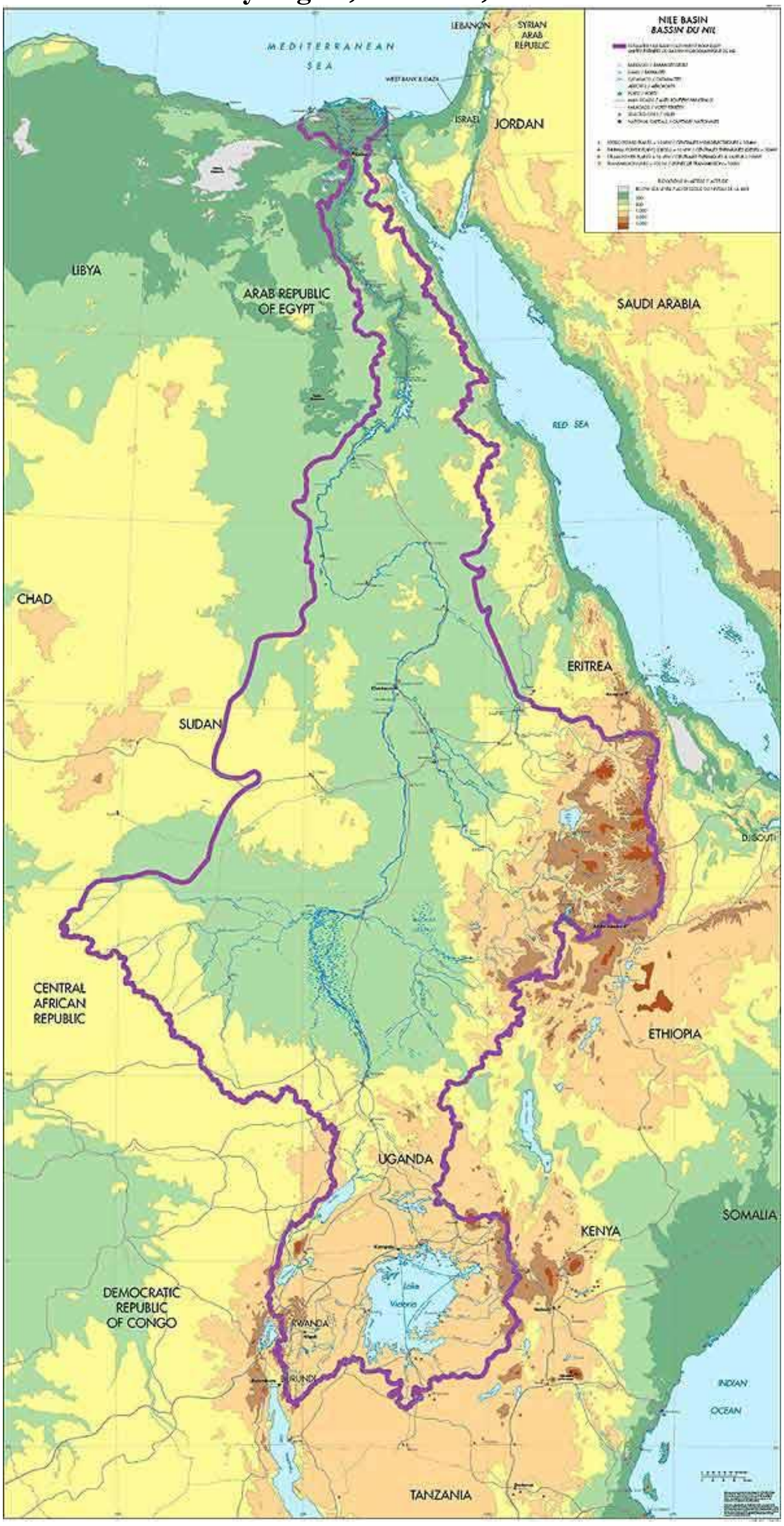


Figure 1: Nile basin catchment area
Source: http://www.capewatersolutions.co.za/2010/05/13/the-fight-for-water-from-the-nile/

[1] (National Geographic, March 2010: 65)

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Abbreviations

ASL	Above Sea Level
BSL	Below Sea Level
BCM	Billion Cubic Meter
CFA	Cooperative Framework Agreement
DHL	Dag Hammarskjöld Library
ENSAP	Eastern Nile Subsidiary Action Plan
GA	General Assembly
GDP	Gross Domestic Product
GNI	Gross National Income
ICJ	International Court of Justice
ICESCR	International Covenant on Economic, Social and Cultural Rights
ILA	International Law Association
IO	International Organization(s)
IWRM	Integrated Water Resources Management
KBO	Kagera Basin Organization
NBI	Nile Basin Initiative
n.d.	No Date
NELSAP	Nile Equatorial Lakes Subsidiary Action Plan
NILE-COM	Council of Ministers of Water Affairs of the Nile Basin Countries
p.a.	Per Annum
PJTC	Permanent Joint Technical Commission
SADC	South African Development Community
SG	Secretary General
SVP	Shared Vision Programme
TECCONILE	Technical Cooperation Committee for Promotion of the Development and Environmental Protection of the Nile Basin
TSM	Transnational Social Movements

UN	United Nations
UNDP	United Nations Development Program
UNGA	United Nations General Assembly
UNTC	United Nations Treaty Collection
UNWCC	United Nations Convention on the Law of the of the non-navigational Uses of International Watercourses 1997
USD	Currency of the United States of America, US Dollar
VCLT	Vienna Convention on the Law of Treaties 1969
VCSST	Vienna Convention on Succession of States in respect of Treaties 1978
WMO	World Meteorological Organization
YBILC	Yearbook of the International Law Commission

ANALYSIS OF INTERNATIONAL WATER LAW INSTRUMENTS REGARDING THEIR PREVAILING ACCEPTANCE IN THE NILE BASIN WITH THE FOCUS ON EGYPT, ETHIOPIA AND TANZANIA

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Abstract

The thesis looks at the aspects of integrated water resources management from the legal perspective, and analyzes the Nile Riparian behaviour towards changes on individual state preferred legal positions and perspectives, based on two important international water law instruments and the Nile Basin Initiative, which was founded in 1992. The Nile River exemplifies the typical downstream- upstream problematic in international water law, the no-harm principle and the equitable and reasonable utilization principle. The aim is to identify changes in the (regional) water law and basic principles of the Nile basin states of Egypt as a downstream state, Ethiopia and Tanzania as upstream states. According to the theory of constructivism, states and international systems are socially constructed and are subject to constant change. The influence of institutions on the development of law and the influence on states specifically are analyzed.

1. Introduction

In 1997 Goldfarb stated, that it is ironic that water education, management, and discourses are so fragmented for such a unifying and powerful resource as water. Nearly one and a half decades later, the concept of integrated water resources management (IWRM) is one of the best-known and most applied managing instruments in the water sector. The concept of IWRM is not yet familiar to the broad public as the term “sustainability” and what it means to live it. IWRM is incorporated in the pillars of international organisations, builds the foundation for higher education and is an integral part of national politics. The need for bridging hydrology, human dimensions from economics to law, ethics, aesthetics, sociology and institutions has to be understood and applied by the decision making bodies, scientists and implementing stakeholders [2]. Considering this, the question should be asked, how the integrated approach is successfully implemented on transboundary waters, especially in regions, where water plays a major role in politics and becomes scarcer everyday, due to climatic, man-made reasons and population growth. The Nile basin and its riparian states are exemplary in this regard and it gets more complex, when the historical and legal relations between the basin states are considered. It is questionable, if the Gordian knot can be cut.

The history of the Nile basin is long, with Egypt as primary beneficiary for nearly 5,000 years. Egypt uses the river waters mainly for irrigation purposes and depended on the seasonality of the Nile flood until the beginning of the 20th century (Hornstein, 1999: 294). The Nile riparian states are on the verge of a common legal agreement and a River

[2] Freeman, Goldfarb in Wolf and Priscoli, 2009

Basin Commission. Realigning their position on an equal footing, as long as all Nile basin states sign the existing Cooperative Framework Agreement until 14th May 2011.

The catchment area of the Nile comprises 3,1 mill. km^2, respectively 4,0 mill. km^2 with a length of 6,825 km, respectively 6,640 km[3]. Before the river reaches the Mediterranean Sea, it crosses 10 countries and 5 different climatic regions. The most distant source is the Luvironza river, a tributary to the Kagera river, which is the important tributary to Lake Victoria and therewith to the White Nile. Up to this point the White Nile crosses Burundi, Rwanda and Uganda. Lake Victoria as well as Lake George, Edward and Albert are part of the Lake Plateau. The so-called upper Victoria Nile flows out of the only outlet of Lake Victoria, which is situated at the Owen Falls dam. The lower Victoria Nile flows through Kioga and Masindi before it drains into Lake Albert and streams into the Sudd in Sudan, after crossing Tanzania as well.

The evaporation losses increase steadily as the river enters the Lake Kioga. The Ethiopian tributary Sobat joins the river before the White Nile joins the Blue Nile in Khartoum. The Blue Nile, or so-called Abay river, originates at Lake Tana in the Ethiopian highlands and supplies 60 per cent of the Nile water. The Blue and White Nile join at Khartoum, until this point the waters of both rivers travelled around 1,500 km. Furthermore, until this point, Zaire, Kenya, Tanzania, Rwanda and Burundi are crossed. The “main” Nile then receives additional water from the Atbarah river. The Nile river continues its way to Aswan, until it reaches the Nile delta and drains into the Mediterranean Sea. 4

[3] The figures vary, Collins' (1st) and Hulme’s (2nd) figure are the latest according to Kliot.

[4] The data are taken from of Kliot, 1994: 15, 15 and the NBI, 2010

1.1 Purpose and relevance

The work will be concerned with two legal non-binding instruments, the Helsinki Rules of 1966 issued by the International Law Association and the 1997 United Nations Convention on the Non-navigational Uses of International Watercourses. Both international organizations contributed to the development of international water law and its dissemination. International organizations such as the United Nation and International Law Association help to socialize actors, as well as influence and shape the development of the sphere of international water law.

Did the international water law development of the last 50 years also influence the individual Nile riparian countries perspective, since nine out of ten basin states have worked in partnership for nearly 20 years within the framework of the Nile Basin Initiative (NBI)? This cooperation stands on shaky ground. The attempt of creating a legal foundation after two decades of common work is pending. The Cooperative Framework Agreement (CFA) is signed by 5 out of 9 Nile states. The bone of contention (litigious) is related to articles that are reputed to be acquired rights. The involvement of the Basin states in the planned projects is claimed to be contradicting international law. Are these arguments legitimate? What are the actual Nile States perspectives on international law principles and existing treaties?

For this reason, it is important to analyze the process and post-process of these two major “events” regarding the Nile riparian countries perspectives on international water law, whereby evidence might be able to be provided if those events changed states’

point of views over time until the Cooperative Framework Agreement. The CFA will be a tool to understand whether or not the three legal instruments affected states perspectives on international water law from their very own point of view over the last fifty years until now. The influence of the CFA only to a limited extent, since the voting process of the basin states is still pending; and as a result, data availability is low and confidentiality high. Nevertheless, if changes in the perspective on international water law occur or are likely going to take place in future time will be observed and pointed out.

1.2 Problem Statement

The preconditions of the Nile riparian countries: recent developments within the NBI, underlying international law perspective of each riparian country towards existing treaties and the perspective on effects of states becoming independent as well as the allocation of power to the Nile riparian's states made this case study interesting. It is interesting to analyze the impact of international water law cornerstones in such a difficult and inter-connected surrounding to understand whether water law influences, makes a difference and shapes states perspective. Especially on the very opposing position of upstream riparian countries preferring the principle of reasonable and equitable utilization and downstream riparian states favouring the no-harm principles. Both principles are the cornerstone

A clear identification of how and to which extent international law matters and influenced state behaviour is hard to identify. Drawing a separation line between states perspective on international water law principles and foreign political (re)action is difficult to achieve, since development of law, especially international law, does take

place every day. But significant impact and development takes decades, which is all the more complicated by the nature of international relations in itself and the importance and scarcity of a resource. Different perceptions of international law principles vary from nation to nation, as does their acceptance. Another issue is the succession of states and the legal effects on treaties signed by their predecessors.

1.3 Hypothesis

The author assumes that international water law instruments, composed by international organization states successions, influences and shapes state behaviour, despite their grouping as soft law. Proving soft law as an effective instrument where hard law is absent and/or undesired, counteracts the development of treaties. Soft law supports and paves the way for hard law rather than possibly destabilising the international normative system leading to that it's purpose is not longer served. Furthermore, the author is attempting to underline the importance of international actors in the law making process in the field of international law, especially international water law through the application of the underlying theory of constructivism[5].

2. Methodology

2.1 Literature

To understand the continuous discussion of the upstream and downstream riparian states, two fields have to be explained: a) the genesis of international water law and its cornerstones as well as b) bi-lateral treaties, partially made under colonial rule. This will be done in the legal assessment of chapter three. Also in this chapter the role and

[5] Explanation will follow in chapter 3

limitations of organization as the United Nations and the International Law Association are explained by referring to the theory of constructivism. The secondary literature analysis of the legal assessment (3rd chapter) will be based on two major books: The legal dissertation of Clemens Oswald and book of Terje Tvedt, edited as a product of the Nile Basin Research Program at the University of Bergen, Norway. The legal assessment sources are primarily the Helsinki Rules on the Uses of the Waters of International Rivers, adopted by the International Law Association at the fifty-second conference, held at Helsinki in August 1966 (HR 1996); Convention on the Law of the Non-navigational Uses of International Watercourses 1997 (UNWCC), adopted by the General Assembly of the United Nations on 21 May 1997 (IWC). The latter is supported by the thesis of Schroeder-Wildberg at the Technical University Berlin and the Yearbooks of the International Law Committee of the United Nations as well as Zuchold (2009) at the University of Applied Sciences Berlin. Several books and journal articles of experts on international water law make it possible to go more into detail. In depth information can be withdrawn on the UNWCC with McCaffrey (2001) being one of the rapporteurs in the Conventions drafting process and his expert knowledge on water law itself. The most recent development in international water law, the ILA Berlin Rules, will not be considered. Whether or not the 2004 Berlin Rules are accepted among governments, courts, lawyers and international organizations can only be proved over time, and a period of six years since their acceptance is insufficient. In addition, the content is disputed within the ILA itself[6], and the Nile states views are unknown and cannot be traced within the scope and timeframe of a master thesis.

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[6] Dissenting Opinion of the report was directed on the basis for the ILA Conference in Berlin, 2004. Substantial and procedural doubts were raised. The imprecise use of legal language and approach, lack of accurate differentiation and application of internationally accepted transboundary water law principles as well as the new approach of national waters that is now included were criticized. The fourth objection

Chapter IV displays the results. In this context, the states positions and effects of the existing treaties and water law instruments are displayed in three case studies: Ethiopia, Tanzania and Egypt. These countries were chosen since downstream and upstream states are represented and with most possible extreme position on international water law. What is more, historical and political impacts on those countries shaped their course of action, influencing the foreign policy of neighbouring states. Those factors are considered in chapter IV. An isolated legal analysis is not conducive and falsifies the findings.

The results are discussed in chapter V. The available literature on the Cooperative Framework Agreement as well as the individual states' perspectives will be assessed. The content of the CFA will be assumed based on the status quo of international water law and aforementioned literature and the papers of Mekonnen (2010) and Arsano and Tamrat (2005). The Cooperative Framework Agreement is used to a limited extent, since the voting process of the basin states is still pending and data availability is low. Finally, in chapter VI the results of the states will be discussed, indicating whether or not international law had an influence under consideration of the underlying theory of constructivism. In the conclusion of chapter VI, the outcome of legal analysis of the three basin states will be explained. Moreover, the hypothesis will be supported or disproved, and a possible, simplified outlook will be given, how the claim on an

was aimed at the classification of the "equitable utilization" rule, subordinating it to "no harm", and focused on environmental protection. The Berlin Rules centers on the "no harm" principle, which contradicts the original ILA approach of equitable utilization incorporated in the Helsinki Rules. (ILA Dissenting Opinion, August 2004: pp. 1- 4).

equitable share of the beneficial Nile water uses could be elaborated.

2.2 Analytical Method

The analytical method chosen in chapter III is the impact analyses of international actors on international law based on the political approach theory of constructivism (Barnett and Finnemore, 2007; Finnemore and Sikkink, 1998). The processes behind/in international law and the United Nations role in chapter III is taken from Alvarez (2007). The legal method mainly relies on secondary legal sources comprising treaties, commentaries, case law, and law journals, which are namely the Helsinki Rules 1966 and the 1997 UNWCC. Secondary legal sources are the commentaries issued by the ILA on the Helsinki Rules and ILC on the UNWCC. Further literature is on the binding force of international law regarding states succession, international (water) law and specially the role of law in the Nile Basin (Snyder and Sathirathai, 1987; Knobelsdorf, n.d.; Alvarez, 2007; Dellapenna and Gupta, 2009, Brunée and Toope, no comprehensive enumeration). Chapter IV deals with the Cooperative Framework Agreement. In this context, the existing information on states actions and reactions during the negotiations process is evaluated based on media reports citing/-interviewing Nile states ministers, experts and scientific papers such as Mekonnen, 2010; Arsano and Tamrat, 2005.

3. Legal Assessment

3.1 Theory of Constructivism as underlying concept

To analyze changes in international water law, it has to be understood where they occur and who the actors are in this process. In the following section, the important role of

International Organizations (IO) specifically the International Law Association and the United Nations in the chain of lawmaking will be dealt with.

Constructivism is based on an idea that social institutions are not external objects handed down by some unknown power. These institutions, like the state or the international system, are socially constructed by the rules and practices of human life. They are the result of a historical process that is constantly in flux. Thus, the state and the international system are not constant and theories and understandings of international relations must also be contextual.

This theory, still in a stage of development, of nascent international relation is derived from international law and sociology; moreover, it is driven by change, meaning it traces the impact of small changes in society on states' behaviour, which shapes states' identity, and the outcome of actions. Based on four columns, which follow that first, history is mutable and contingent, second, state goals follow a state's identity and third, anarchy consists of rules, norms and conductive behaviour between states and society, as well as the forth column, that governance occurs without government, through the existence of these (international) institutions and organizations.

As regards the first precondition, mutable and contingent history, in this theory stability is not presumed, instead keeping the international system going and stable requires work. What is more, a major factor is the role of history. The path history follows is, according to Patrick Thaddeus Jackson (PTJ 2007), just one possible direction of the international system: History "…could have been different or could be different for

constructivists, (and is) no natural necessity…”. For this reason everyday practises need to be examined.

The second precondition is that out of a state’s identity follows the interests and practices that determine identities, and the identity shapes the outcome. The different social contexts that exist contain different possibilities for action. It means for the definition of the identity of a state or a social actor, their boundaries are set by their own definition of acceptable action. Who we are defines what we (could) do. From a constructivism point of view, identity is derived from culture not from material factors only. On the contrary, realists examine it from a crucial material - military point of view, security defence and resources needed for such defence. It is also critical that own identity is also seen in the same perspective from others, otherwise this identity does not exist outside the own sphere of action. The way a state identifies itself reflects how one understands other states’ identities, which shapes relation and politics to another, whereby identity changes with socialization, domestic political shifts and transnational social movements (TSM). The latter lobbies governments as well as international organizations, and with pressure emanating from inside and outside to change identity, they change what leaders think they are capable of and maybe shape, shove and shift politics.

Communication follows recognition and acceptance of supremacy of states within their territory from each other, with examples such as acts of diplomacy and recognition of international law. States actions are only binding when sovereignty is accepted. This space between states is considered the international community. The absence of a higher

governing authority, or anarchy, creates bonds made up of rules, procedures and agreements in international society, the third pillar.

International institutions and governance without governing is last and forth column. In this context, the foundation is the balance of powers, balancing off against one another's capabilities derives from deliberate practice. This dynamic is a social product and exists due to natural occurring circumstances. From a historical point of view, the balance of power is derived from the notion of being a great power (Jackson, 2007). The social conventions of the international system at that time have to be examined (Jackson, 2007). International institutions are no guarantees of behaviour; they are standards for legitimate enforcement.

Global governance is a system of shared norms and principles embodied in international organizations, which have no hierarchy, no world government. Examples for governance without governments are the UN peacekeeping missions, through which the UN has the authority to send troops. Having authority means having the ability to define standards; non-state actors are crucial to constructivists as a source and as an object.

3.2 Legal entities – necessity of consideration

"The UN, and IOs generally, have transformed the three traditional sources of international law and generated a multitude of forms of 'soft law' that are difficult to fit within those traditional sources." (Alvarez 2007: 39)

The power to make international law is limited to international legal persons, namely states. They have not generally bestowed upon sovereign lawmaking powers to the global intergovernmental organizations, but law generated by International Organizations (IO) currently challenges the belief in legal positivism[7]. Multilateral mechanisms for the creation of global law are inexistent (Alvarez, 2007: 59).

3.2.1 The United Nations

The United Nations charter does not provide the institution to make law or issue legally binding judgements, but is instead limited to discussion within the charter's scope and issuing non-binding recommendations, art. 10 – 13 Charter of the United Nations. Furthermore, the applicable sources of law for the International Court of Justice are limited to international conventions and treaties ratified by governments, custom and general principles of law, art.38 Statute of the ICJ and further decisions of judiciary and doctrines of qualified authors (Priscolli et al 2009: 55). But Alvarez explains that this (positivists approach) includes the proposition that organizations based on a charter such as the UN are a kind of treaty compact subject to traditional rules of treaty interpretation in the way that all international obligations are the result of explicit and freely given consent of states; the most significant source is interstate compacts, strictly interpreted in accordance with their terms results (Alvarez, 2007: 59).

The UN charter as a view of "world constitution" is increasing, which is subordinated superior norms, principles resulting in teleological interpretation between political UN organs and a number of international courts. An ICJ's advisory opinion on reparation

[7] Legal positivism is the principle of legal certainty. Aim of law is security, good and justice. Prevalence of standards are determined by the state only, natural justice is not considered (Krause et al, 1990: 254).

for injuries suffered in the service of the UN is an example of the first changes from the 1949-charter’s role. In this context, the General Assembly (GA) forwarded the question whether the UN could claim, on an international basis, to recover own damages and the mediator’s family against Israel. The accident occurred in 1948 when a mediator was killed on a UN mission in Israel, which at the time had yet to become a member of the UN. The ICJ stated that the UN could bring forth claims against non-UN members because the legal personality is sufficient in international law to fulfil its purposes. It could be assumed that this comprises such claims. The Secretary General recommended to the GA to accept the ICJ’s opinion, after having done so, the Secretary General sought relief from Israel. (ICJ 1949: 174).

The United Nations are a source of ideas and a creator of new rules and norms, using those mechanisms of change in combination with different actors, and "…create new actors, interests, and tasks.” (Weiss and Daws, 2007: 50). Barnett and Finnemore state that international organizations different uses (creative, strategic and sometime accidental) of framing, shaming and debating showed that a transformation of beliefs and perception of interests is possible next to propagation of new norms and the creation of new actors (ibid). Claude points out that the principal political function of the UN was the collective legitimating of the international order, because of its inclusiveness and open processes of deliberations, allowing all states to participate as legal equals (ibid). The most important debates of what should be rules, standards of behaviour of states codes of conduct will take place at the UN level and is most intense where there is a shift, shock or challenge in world politics that potentially destabilizes the existing standards (ibid: 51).

To explain a state's influence to the UN, Barnett and Finnemore, use the example of the Nordic countries and Canada by displaying that their worldwide power is small compared to their larger influence on the organization. One possible reason could be the reputation within the organization itself. This means the more a state's (A) foreign policy is matching with the UN principles, and norms the more likely it is that trust/respect is paid by other states and towards representatives of state A within the UN, which makes following proposals of state A in the organization more likely (Weiss and Daws, 2007: 52). In this way, Canada and the Nordic states and other middle powers "… go out of their way…" aligning external actions and foreign policies with UN principles. The leadership credibility inside an institution, such as the UN, increases when external actions and institutions agenda are matching (ibid: 53).

Herein lies one significant threat to international law (custom) development: forum shifting. Powerful states choose in a treaty negotiation process an organization to influence the process in their favour, achieving aimed at results. This can over time create global rules biased towards certain states' interests (ibid, Ruggie 1998: 856). The UN's claim to universal participation is a benefit, but negotiations are undermined where a smaller negotiation table would have been more appropriate with states thinking alike (Alvarez 1997: 65).

The UN originally limited power shifted, becoming a significant lawmaker, which changed the above-mentioned three traditional legal sources - so-called hard law, and contributed heavily toward creating soft law. The latter is per definition neither binding,

nor does non-compliance with it result in sanctions according to art. 38 ICJ statute. It (soft law) is commonly dynamic in a way that a process and examination by learning and changes take place over time (Abbott et al: 423). The main soft-law instruments at present are judgements, advisory opinions, views and general comments of institutionalized dispute settlers such as McCaffrey. Mr. McCaffrey being one of the rapporteurs of the 1997 United Nations Convention on the Non-navigational Uses of International Watercourses, which is also the example of a soft law instrument on international water law, is discussed in detail below. Even changes in pre-existing rules can be done by consent of states, but hierarchal superior norms exist, such as *erga omnes*[8], which is established by the ICJ, art. 2 para. 6 of the UN Charter and is applied in the international community. Different points of views exist on the effects of hard and soft law in international relations and law[9].

The following explanations are made referring once more to the 1949 ICJ Advisory Opinion, which paved the way for institutions generating new law or interpreting the old law in a new way. This is possible even their assigned framework for action does not explicitly state so. This means for organizations with legitimacy based on a) claim

[8] *Erga omnes*, legal term describing obligations and rights enforceable against anybody

[9] Extensive discussions exist. Abbott et al argue that international actors chose either hard or soft law to order relations depending on their interest to solve specific substantive and political problems by treaties or other legal arrangements. An economic factor that reduces transaction costs is decisive for hard law as well as foreign policy, expanding available political strategies and strengthens the credibility of commitments and resolving problems of incomplete existent contracting. Soft law's advantages are its flexibility for adapting to changes and connected therewith, reduced costs since the process from drafting to ratification does not take place. Soft law can be achieved more easily, is an in-between stage before becoming hard law and non-state actors can participate. Contrary opinions state that soft law is "window dressing", since no independent judicial body with supporting enforcement power exists according to realist. This view connotes that all international law is soft.

International lawyers state that from a normative perspective point of view, an increased use could destabilize the whole international normative system, leading to a situation in which its purpose is undermined (Abbott et al: 421 ff.).

to universal representation, b) impartiality, c) independence. Giving International Organizations the possibility to establish propositions of an international legal person capable of taking many actions, states are entitled to take necessary steps to fulfil own purposes (Alvarez 2007: 61).

Reasons to consider IOs in legislative processes are also economic factors. It is stated that treaty negotiations under IO patronage encourage agreements by replication. This reduces transaction costs, encourages self-enforcing behaviour and reliance on sunk costs, which comprises at the same time access to information and the encouragement for issue linkage/package deals. Other factors leading to the success of treaties made in an international forum are that they are broad in scope, use imprecise language and the ambition for global acceptance. The fact of being vague is not necessarily negative when tools for closing gaps by institutional mechanism exist. As well, modern treaties rely on continued interpretation, elaboration and enforcement contingency on organizations. The aforementioned dynamic is proved by, for example, the rising number of successfully concluded multilateral treaties and higher numbers of ratification (Aceves, 1997).

3.2.2 The International Law Association

Out of the high number of active non-governmental organizations, the International Law Association is chosen since it plays a major role in shaping international water law. Constituted in Brussels in 1873, the association's consultative status helps enhancing public and private international law with UN specialised agencies. The ILA members

are, for example, lawyers from all fields and non-legal experts from private sector, organizations representatives. Autonomous regional branches around the world meet annually to discuss research and reports prepared by international committees. The committee on water resources law has been active for more than 50 years, focusing on statements of the customary international law, and has produced a series of rules addressing, for example, the international water law. Within three committees, the organization studied and formulated articles on water use aspects of international water drainage basins. One of the major achievements and influential resolutions by the ILA are the 1966 Helsinki Rules. The work during 1966 until 2004 built on the Helsinki Rules, which is imbedded in the overarching principle of equitable utilization, and specifies the required reasonable and equitable sharing of benefits of the waters of an international drainage basin, which from ILA’s point of view is best suited achieving rational water management (Bourne, 1996). The ILA studies and outcomes are engaged in developing and closing gaps in the existing water law, for example, paying legal attention to unconfined aquifers as a major source and legal grey area on transboundary waters.

3.3 Development of International Environmental and International Water Law

In order to go into detail about water law development in specific basin its basic principles, theories and evolvement have to be explained briefly before introducing the Helsinki Rules 1966 and UN Convention of 1997.

3.3.1 Environmental Law

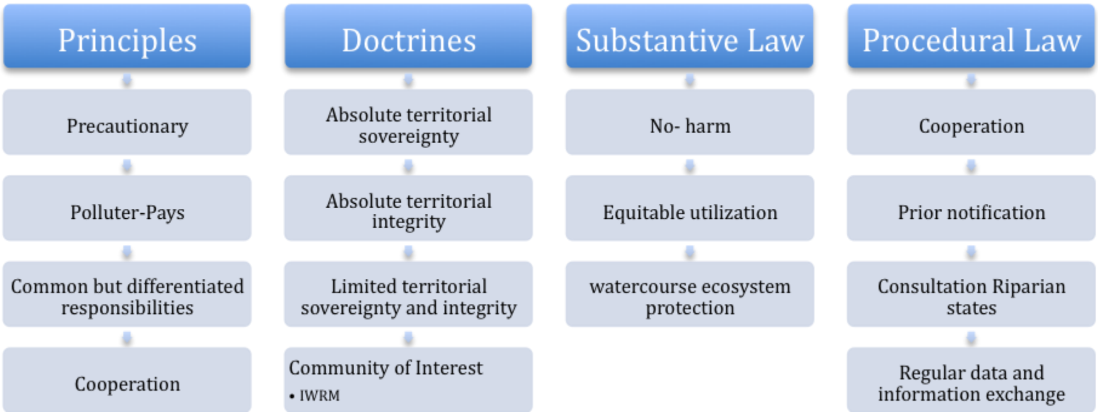
The 1970s was a starting point for the status of environment in international law. To entirely understand environmental law, the application of international law on ecological problems has to be examined. Basic knowledge of general international law and contract law in particular is needed, since no multilateral treaty exists that functions as the basis for international environmental law. Moreover, a large variety of treaties and conventions exist. Characteristic for international environmental law is the usage of basic agreements, multilateral agreements, and setting a structure of principles. The United Nations plays a major role, and its facilitation of consensus decision-making is the basis for agreement in international treaty negotiations. The historical development of environmental law took place in three phases[10]. Through the Stockholm Conference in 1972, the United Nations Environment Program came into being. This organization, which is part of the UN, has contributed to 48 multilateral environmental conventions and protocols since it began. In connection herewith a periodical "review of environmental law" was realised, so-called Montevideo Program (UNEP). Furthermore, contribution to environmental law took place through the World Commission on Environment and Development, which issued the concept of sustainability in the "Brundlandt report" (UNGA 1987). This concept was the starting point for the World Summit in Rio 1992 and follow-up World Summit on Sustainable Development in Johannesburg 2002 for the Agenda 21 evaluation and further implementation and Rio

[10] 1. Traditional era: pre- 1945 until 1970; 2. Modern era: startet with UNCHE 1972 in Stockholm until 1992 UNCED in Rio. 3. Post-modern era: period past Agenda 21. In the Literature international environmental law starts with the 1972 UNCHE (Bodansky et al, 2008 : 33).

+20 in Rio de Janeiro in 2012. Apart from above-mentioned instruments and ICJ decisions influencing the environmental law, customary law[11] has its impacts.

The following figure shows an overview of existing doctrines, principles as well as procedural and substantive rights and duties that are applied in international water law. The doctrines will be outlined, whereas principles and procedural, substantives rights are only stated[12].

Figure 2: Principles, doctrines and laws in international environmental law



3.2.2 Water law as environmental law

The existing different uses of water mirror the different fields of international law. Water law itself is understood as international norms dealing in any form with the usage

[11] Customary law is defined in art. 38 of the ICJ Statute. International customary law is created by a) general and consistent practice of states and b) common sense of being a legal and political obligation (Lexexakt, 2010). Customary law does not derive from a state's notion that its behaviour would constitute customary law as such. It is necessary that a state's behaviour is not impugned by another (Akehurst, 1977: 53). States can eschew being bound to international customary law through persistent rejection, the so-called "doctrine of persistent objector" (Louka, 2006: 24). It has to be mentioned that the source of law, which applies depends on whether or not a specific law exists. A valid treaty would be have to be applied instead of a general available norm, but only if it does not collide with existing international law, which is accepted by the international community (Art. 53 Vienna Convention).

[12] Extensive explanation in Sands: 246, Louka: 25, McCaffrey: 384 et seq.

of stagnant and floating water bodies in their entirety (Thalmann, 1961: 808). Initially contract practice between riparian states mainly focused on the right of utilization in a fair and equitable distribution for industrial and agricultural purposes as well as navigation and fishing (Heintschel in Ipsen, 2004: 983). The non-navigational utilization, usage and consumption, of transboundary fresh water bodies will only be relevant for this paper. Law of inland waters belongs to the oldest and most densely regulated field of international environmental law. Norms regulating national borders on frontier waters and scope of norms on private as well as administrative law dealing with actions in and on national waters are not part of international water law (Thalmann, 1961: 808).

Riparian countries agree on the fact that only states having a share on a water body have a right to use it. Two main questions in international law exist regarding whether a state has an *a priori* entitlement of use, and if so, to which extent, including the basis (Oswald, 1999: 119), which is the bone of contention, and often in connection with the state's point of view on the following theories in international water law. Four main doctrines centre on, 1. Absolute territorial sovereignty, 2. Absolute territorial integrity, 3. Limited territorial sovereignty and integrity, and 4. Community of Interests theory (Oswald, 1999: 119; Zuchold, 2009:23 ff.).

The first two principles reflect extreme positions and are denied by international law due to conflicts with the principles of the rightful use of one's own property not to harm

others[13]. A state, following the absolute territorial sovereignty, uses the water within its territory as it likes, even if the riparian state would be seriously harmed. Often used by upstream states, this position was stated by the United States, India and China[14]. Downstream states tend to defend the common law based doctrine of private water law (Oswald, 1999: 119). A common resource can only be used in a way of having no impact on the natural quality and quantity of a water body in a foreign territory. But following this principle, an upstream state would not – in an extreme case – have the possibility of developing its water resources, since every impact needs the approval of the downstream country. This position was taken by Pakistan[15] and Egypt. The latter seems consequently not to follow this position any longer (Oswald, 1999: 120).

Both theories are not accepted in international law but continue to exist in a more or less as a "negotiation trump card" (Chevenert in Oswald, 1999: 122). Neglecting the existing cooperation and interdependency between states (Oswald, 1999: 120). It further contradicts with principles of the rightful use of one's own property not to harm others.

The balance of both extreme principles is considering the interests of other participating states, the theory of limited territorial sovereignty and integrity. The latter keeps in mind the principle of good neighbourliness; its roots are the equality of rights of

[13] *sic utere tuo ut alienum non laedas*, legal maxim deriving from latin: the rightful use of one's own cannot be a legal wrong to another

[14] So-called Harmon doctrine was the United States position in the 19th century for a period of time. Its name's origin was derived from Attorney General Harmon on his position on disputes between the US and Mexico on the Rio Grande River. China took this position during the IWC negotiations. Disputes on the Ganges and Indus River occurred between Pakistan and India, whereby India stepped back from this position in the later years. According to India, the Ganges River was not an international river, since 99,9 % of its catchment area is in India (McCaffrey, 2001: 294).

[15] This position was taken by Pakistan in the dispute with India on the Indus and Ganges River, as mentioned above.

sovereign states (Oswald, 1999: 124). The principle is confirmed by international judgements as the aforementioned Trail Smelter and Lac Lanoux Case[16].

The fourth and last theory, community of interests emanates from the hydrological unit approach of a watercourse, in which a multiplicity of factors - cultural, economic, geographic, meteorological and hydrological - have to be considered when making a equitable decision on water distribution (Louka, 2006: 173, 182). The term "interest" has to be understood in this case as the present and anticipated future use of a waterbody and its share on the wellbeing of the watercourse ecosystem. Major interest exists in not being affected adversely in utilization by another state. The different and diverse interests of states on a watercourse are based on one and the same, and this what commonly conjoined in a community of interests (McCaffrey, 2001: 162). Joint utilization and development of international watercourses by common planning and implementation are characters of a community of interest approach (McCaffrey, 2001: 154).

This theory can also be considered as an information tool on detailed duties of riparian states (McCaffrey, 2001: 150). The concept was affirmed in the 1929 Oder (PCJ A 23, 1929: 27) and reaffirmed in the Gabcíkovo-Nagymaros Case (ICJ, 25.09.1997: para 85):

[16] Both cases state that the right of usage is only allowed to the extent, that no serious harm is caused by the neighboring territory (Zuchold, 2009).

> …a community of interest of riparian States. This community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others.

The theory is applied in practice by the principle of Integrated Water Resources Management.

3.3.3 Integrated Water Resources Management

The concept is the attempt of an integrative regulation on water. The term itself derives from a definition of the Global Water Partnership (GWP) being

> …a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. (GWP TAC 3, 1999: 22).

The GWP definition is built up on international water and environmental management and the 1992 Dublin Principles as well as the 1992 United Nations Conference on Environment and Development (UNECD). The Dublin Statements paved the way for the UNECD wording on freshwater protection in Agenda 21 (UN 1992)[17]:

> Principle No. 1 - Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment

[17] The Agenda 21 principles were amended by the Rio-Dublin Principles, stating in Principle No. 4 “Water is a public good and has a social and economic value in all its competing uses”. There is a fifth Principle, which states “Integrated water resources management is based on the equitable and efficient management and sustainable use of water.

Principle No. 2 - Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels

Principle No. 3 - Women play a central part in the provision, management and safeguarding of water

Principle No. 4 - Water has an economic value in all its competing uses and should be recognized as an economic good.

The 1992 UNECD states in Agenda 21, Chapter 18.3 that the need for integrated water resources planning and management of freshwater resources, surface water and groundwater derives from their negative development attended by progressive negative interactions, in which the multisectoral nature of water resource development in socio-economic perspective and multi-interest utilization have to be considered in the same way as qualitative and quantitative aspects (UNECD, 1992: para. 18.3)[18]. The principles were referred to major international water conferences (McIntyre, 2009: 2).

The IWRM concept is not further explained in depth since it is referred to throughout the paper.

[18] Multi-interest utilization has to be understood as follows: supply, sanitation, agriculture, industry, urban development, hydropower generation, inland fisheries, transportation, recreation, low and flat lands management a.o. (UNECD, Agenda 21, Chapter 18.3)

3.4 Water Law Instruments

3.4.1 Helsinki Rules 1966

The International Law Association started working on a basic legal document on utilization of international fresh water resources in 1954 (Bourne, 1999: 155, 156). The starting point began with several international river disputes after 1945, such as Egypt and Sudan over the Nile, India and Pakistan over the Indus river, Canada and the United States on the Columbia river and the absence of accepted and internationally applied rules regarding such conflicts (Bošnjaković, 2005: 5).

In 1958, the ‘Helsinki Rules on the Water of International Rivers’ were adopted and were the outcome of the International Law Association’s efforts, which are based on the Dubrovnik Statement and the later followed New York Resolution (Salman, 2007: 628). In the ILA New York Resolution, the term international drainage basin was declared as a starting point, and further the reasonable and equitable sharing of beneficial uses of the waters of the drainage basin for co-riparian states were stated (Oswald, 1999: 201; Salman, 2007: 628). The Helsinki Rules accomplished and collected for the first time all of the important aspects on international water law.

The core of the Helsinki Rules is Article IV hereafter:

„Each state is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.“

The ILA regards it as key principle of international law and rejects the theory of absolute territorial sovereignty. No state has the right to demand a continued flow from co-basin states. An "…equal and correlative…" right of use is determined by economic and social needs of its co-basin states rather than identical shares in water use (ILA, 1966: 10), reaching a maximum benefit of use and a minimum detriment to each basin state (ILA, ibid). The factors determining the share for each state are quoted in Article 5. This non-exhaustive list of factors is a flexible guideline for granting equal rights to all basin states. The different factors are weighed according to the basin's specific conditions, bearing in mind the precondition that no use is preferred from any other (article VI), the fact that existing reasonable use of a basin state has to be one of flexibility, as well as the fact of review and readjustment for its use for co-basin states future use (art. VII, VIII).

The international drainage basin approach in art. II comprises "... a geographical area extending over two or more states determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus.“ The comments state explicitly the indivisible hydrologic unit of a drainage basin and the need for a comprehensive consideration for use and development of its waters (ILA, 1966: 8). The term refers to a watershed, which means that all waters – surface and underground - contribute to the principal flowing or stagnant waterbodies (ibid). If underground water that flows in a different direction or contributes to another outlet versus the surrounding waters in the area, then it is not accounted for in Article II. The states, which have a share of the waters, are all states whose territories contribute substantially to the surface flow of the watershed/drainage basin Thus using the term

riparian in any form is inappropriate, since only a surface water state would benefit of the water use (ILA, 1966: 9).

The relentless struggle of vested rights are also discussed and paid attention to, which will be explained in further detail in the following paragraphs.

The Helsinki Rules go into detail about how equitable utilization should be understood by taking the (conventional) example of upstream and downstream problem on water resource development by existence of prior use by applying and balancing out the different factors of article V in conjunction with art. IV, VI, VII of the Helsinki Rules. The ILA gives an extensive example within the 1966 Helsinki Rules: The downstream state (A) that is substantially progressing economically has been using its waters for irrigation in the basin area for many years. Millions of people depend on the agricultural products, which are cultivated by the flood irrigation method. Alternative sources for food supplies exist at the same costs, but would be insufficient to meet demand. The country enjoys prosperity. The upstream state (B) considers developing its yet to be exploited hydro-electricity power potential. By doing so, a new community of hundred thousands would benefit. Alternative power supply is possible from other sources at higher costs. Both states do not consider other uses than mentioned. The storage period of water for hydroelectric purposes of state B conflicts with state A’s use, since it overlaps with the growing season of their agricultural utilization. Studies consulted demonstrate for this specific case that a) hydro-electric is more valuable than irrigation, b) a dam permits introducing conservation measures through the control of seasonal flooding and c) modern agricultural irrigation methods and flood control results in reasonable agricultural productivity as well as d) substantial underground waters exists

in the territory of state A. Incidental benefits for both countries derive of a) and b). Reasonable agricultural productivity will be possible after a period of adjustment, but with a reduced output than before state B's development plan. According to Art. 5, the following factors had to be determined in this case with the following outcome. The existing reasonable use has a significant weight, which needs consideration to protect it: The dependency of the countries on these waters, their population, geographic determinants, climatic and weather conditions as well as the financial status of the respective co-basin states. Moreover, the alternative sources for state A's food supply have to be considered as well as the existing irrigation methods which are ("… outmoded and (a) wasteful process…"). The fact that irrigation is of less value in the competing uses, results for state A that its water and food demand can be met by alternative sources. Furthermore, the economic conditions of A favours growth and the key factor is that B has alternative energy sources. The ILA's comment expresses the sensitivity of existing uses and their usual desirability of protection is of less importance in this context; and some modifications have to be made to existing uses. Possible scenarios are for state A: reduction of existing water quantity and substitution by alternative water source and/or irrigation method and/or making use of the back-up capacity of food supply (ILA, 1966: 13). State B's possible solutions are the implementation or the use of alternative sources at higher costs. In all of the mentioned options for A and B, requirements to compensate each other exist, such as discontinuance or impairment of use and direct effects such as higher costs for substitution by an alternative source (energy, food) or non-construction of a planned use (ILA, 1966: 13). The example shows the complexity of the factors to be considered when analyzing the reasonable and equitable share in the beneficial uses of the water of an international drainage basin.

Due to a different focus, the chapters: pollution (3); navigation (4); timber floating (5) and settlement as well as prevention of disputes and prior notification of planned actions by a basin state with certain impact (6) are not explained.

The Helsinki Rules cover a wide range on navigational and non-navigational uses of international waterbodies. The Rules have no binding effect on states, their status of being prevailing international law is disputed, and general acceptance is assumed, since evidence does not exist (Oswald, 1999: 129). The absence of a formal standing of the ILA Rules had no impact on their status as the most authorative, widely quoted set of rules. The totality of important aspects of international water law - principles equitable utilization, pollution, conflict resolution – were covered for the first time in this field law (Oswald, 1999: 129).

The Helsinki Rules were continuously reviewed and amended until the latest ILA work, the 2004 Berlin Rules[19] (Salman, 2004: 631; Hildering, 2004: 47). The rules had been recently accepted by the international community, reflecting international customary

[19] Flood Control 1972; Administration of international watercourses 1976; Belgrade Rules 1980 (flow regulation, relationship of int. Watercourses to other natural resources' environmental elements); pollution of waters 1982; Clarification applying Helsinki Rules, substantial injury to co-basin states, installation of works or the use of water resources in territory of co-basin states, notification procedure, consideration of unconfined transboundary groundwaters no relation to surface waters of drainage basin (protection of groundwater's, conjunctive use of surface waters), 1986; Supplemental rules on pollution, private remedies, 1996; Compilation and consolidation of ILA work since 1966, 'The Campione Consolidation of the ILA Rules on International Water Resources, 1966 - 1999'; Update of the Helsinki Rules with 2000 status quo on international customary law 'The Berlin Rules on Water Resources', consider: all waters within a territory - not only water within a drainage basin, management principles, shared waters, rights of persons, Geneva Convention on water installations in war and armed conflict and state responsibilities (Salman, 2004: 631; Hildering, 2004: 47).

law and were regarded as the most authoritative (Bourne, 1996: 71; Salman, 2004: 636). The Berlin Rules are comprehensive and detailed, outreaching the Helsinki Rules and 1997 UNWC in the three basic features (Salman, 2004: 637 f.). The articles are applied to national and international waters (a), incorporating emerging international law principles, and do not explain which articles reflect established principles. (b) As well, the articles incorporate current customary law and consider it in line with environmental law, downgrading the established cardinal principle of equitable and reasonable utilization by aligning it with the principle of no harm (Salman, 2004: 638). Due to the extent and controversial nature of the International Law Association[20], it will not be discussed in this paper.

3.4.2 The 1997 UN Convention

The convention on the Law of the Non-navigational Uses of International Watercourses[21] was adopted on 21.05.1997 in the 51st UNGA of the United Nations. The mandate for codifying and enhancing the law of non-navigational uses of international watercourses was issued by the General Assembly in 1970 (UNGA 2669, 1970: 127). The task was assigned to the International Law Commission[22], with the goal of submitting a draft convention, which contains precise formulation and systematized

[20] ILA members are not rallying behind the Berlin Rules, partially conflicting, if not invalidating the Helsinki Rules. The latter puts equitable utilization as an overarching principle, whereby the Berlin Rules adjusting the – in the Helsinki Rules subordinated – no harm principle equal. Expressed by an own article 16 and in the commentary to it „... interrelation worked out...“. Further not being in line with the ICJ Gabcíkovo-Nagymaros decision, putting the reasonable and equitable utilization as prevailing principle without mentioning the no harm principle (Gabcíkovo-Nagymaros Project (Hungary-Slovakia, Judgment, 1. C. J. Reports 1997, p. 7: 65, 85). Furthermore, the dissenting opinion states that the Berlin Rules seems to shift toward environmental protection, making international freshwater law a negligible part of international environmental law, which should not be seen and interpreted in such a manner. In addition, opposing arguments such as the application of international water law norms on national waterbodies, also comprised by the Berlin Rules, intervenes with the sovereignty of states. Comprehensive commentary: ILA Berlin Conference 2004 - Water Resources Committee Report Dissenting Opinion.

[21] In the following the abbreviation 1997 UNWCC will be used.

[22] The International Law Commission is a United Nations body is staffed with 34 legal experts nominated by states and elected by the UNGA, art. 2 lit. a), 3, 4, 5 Statute of the International Law Commission.

rules of international law that had – back then – not been regulated, or in state practice, insufficiently developed, even though states had already been extensively practising and precedent, as well as doctrines existed (Statute of the ILC 1947, Article 15). The ILC started its work in 1976 after preparatory work was carried out by a sub-commission and states responded on questionnaires sent by the Commission[23]. It took more than 20 years before formal negotiations started in the Sixth - the Legal - Committee of the General Assembly.

In a first reading (1991), the draft of 32 articles was adopted and sent to the governments for commenting. In the second reading (1993/ 1994), a final 33 draft articles were presented and adopted, including a resolution on transboundary confined groundwater and once more sent the drafts for commenting to the UN member governments. The outcome of the Sixth Committee meetings (1996, 1997) was the Convention on the Law of the Non-navigational Uses of International Watercourses, comprising 37 articles in seven sections and an annex on arbitration.

The Resolution on the UNWCC was adopted by 104 states in favour, 3 against and 26 abstaining votes (GA/ 9248, 1997: 1). The entry into force is only possible when 35 instruments of ratification, acceptance, approval or accession are achieved (UNTC, 2010). During the three-year signature period only 16 states signed and became parties, at present (21.12. 2010) 14 more states have to contribute, that the convention can be enforced.

[23] The exact procedure of the drafting process is laid down in Art. 16 of the ILC Statute.

The convention deals with the scope of application and definition of terms used (part I), general principles of international law (part II), planned measures and the mutual behaviour for each party (part III), environmental protection, conservation and management (part IV), harmful conditions and emergency situations (part V), provisions of general content, dispute settlement (part VI) and final clauses on the legal status of the convention (part VII).

The Articles 1 – 4 (part I):

The scope of the convention, art. 1, encompasses use, protection, preservation and management of international watercourses, whereby navigation is excluded. Article 2 is defining the terms applied. A watercourse is a "…system of surface waters and groundwaters (…) unitary whole and normally flowing into a common terminus.". Confined groundwaters are not included[24]. The hydrological system comprises rivers and tributaries, lakes, aquifers, glaciers, reservoirs and channels (McCaffrey, 2001: 35). In addition, the watercourse has to be situated in different countries to fall in the category "international". Watercourse states are, a party to this convention, when part of the international watercourse is situated in its territory. Article 3 comprises four tasks: a) existing treaties rights and duties are not altered or derogated, harmonization of present treaties is possible, b) parties to the convention can apply, adapt general principles on a particular case, characteristic and use via specific treaty namely watercourse agreement. The third function, c) serves the purpose of conclusion of

[24] There were only two reasons for this option according to McCaffrey: first, unconfined groundwater was not paid attention to/considered in the ILC draft articles and second, the pressure of completing the draft articles. A delay for incorporation was not considered appropriate for some ILC members and the ILC did not have knowledge of states practice in this field (McCaffrey, 2001: 38).

agreements and legal effect to third states not being party to the agreement but having a share on the common watercourse in similar ways the contracting parties. This results in c.a) without approval of third states projects, programmes, uses can only be carried out, when use is not significantly adversely affected, and c.b) duties and rights of third parties are not affected by the concluded watercourse agreement. The fourth considers consultation in case a watercourse state holds the opinion that the convention shall be applied on the special characteristics of their watercourse, which shall be negotiated in good faith and with the aim of concluding a watercourse agreement. In article 4, the borne rights of a watercourse state of becoming a party to an agreement is divided whether or not the whole or simply part of the watercourse is subject to agreement. Participation in consultation and negotiations as well as becoming a contracting party is possible if the whole watercourse is subject to the contract. If only part of the watercourse is part of the treaty, and significant effects to its use may occur, the affected state is able to participate in the consultation process under certain precondition in the negotiations as well with the possibility of becoming a party.

The general principles are laid down in art. 5 – 10 (part II). The equitable and reasonable utilization and participation is defined in article 5. Factors and conditions, which have to be considered for determining an equitable and reasonable utilization are stated in art. 6. Actions that have to be undertaken have to account to: direct and indirect physical conditions of the watercourse, social and economic needs, dependencies, resulting consequences and applied monetary instruments as well as substitution possibilities. The obligation of preventing significant harm to other watercourse states within its territory is codified in art. 7. This contains all appropriate

provisions in utilizing the international watercourse. The general principles shall be achieved by cooperation. This is stated in art. 8., whereby sovereign equality, territorial integrity, mutual benefit and good faith are the underlying principles. The objective can be achieved by setting up a common institution and mechanism if it has not already been established. Subsequent art. 9 deals with regular data and information exchange, whereby it has to be easily available and contain ecological, physical and water quality data. Art. 9 explains that in the whole equilibrating process – with the inclusion of art. 5,6,7, especially basic human rights - it is important, that no use possesses "... inherent priority over other uses.", aside from existing agreements and custom, which are not affected[25].

Part III of the convention is addressing projected measures with possible negative effects on the watercourse and its riparian states, comprising planning procedure starting from notification to the point of possible necessary consultation and to abiding deadlines as well as procedure of wanting notification. According to art. 11, do watercourse states have to inform and consult over possible effects of planned project/ programmes/uses. If deemed necessary, negotiations have to take place when the watercourse conditions are affected. Notification is necessary if significant adverse effects directly affect a state, whereby art. 12 also states that information has to be provided with such notification. During the 6-months (respectively 12-months) deadline of notification, art. 13, the planning state has to cooperate and supply all data and information asked for, art. 14. Misuse is prevented on both sides. The planning state has

[25] The basic human rights take priority over all other existing rights/uses (Zuchold, 2009: 9 ff.). Disagreements arose since some wanted a strengthening and others elimination of considering prevalence of basic human rights (YBILC, 1994: 131, sec. 3).

to freeze all actions, if not authorized, during this period and wilful retard by the notified state is stopped by the deadline itself (art. 15). Claim for damages can be made according to art. 16 by the notified state under certain precondition, but it could be answered by a counter-claim of the planning state. And in case the measure turns out to be inconsistent with art 5, 7 and significant harm is caused, then the whole process of consultation and negotiation takes effect to achieve concerted solution, art. 17[26]. The scenario that a state is planning but not notifying other states, and the precondition for a justified non-enforcement is dealt with in art. 18. Exemptions from deadlines and postponed implementations exist for measures in the protection of public interest and "utmost urgency" are paid attention to in art. 19.

The art. 20 – 26 of part IV contain the protection and conservation of the ecosystem. The "pollution" norms include attempts of the international community to include the successive development in this field at this time. Joint action on an equitable basis is to be applied where it seems appropriate (YBILC 1994 Vol. 2 part II: 118, sec. 2) to protect and conserve the aquatic ecosystem, art. 20. This is aligned with the duty to prevent, reduce, combat (art. 21), and, especially, prevent the introduction of alien and new species to a watercourse that cause significant harm (art. 22). The interrelation of freshwater bodies and marine environment is considered in art. 23. The effect of management and structural alteration are reflected in art. 24 and 25 of the convention.

[26] An example for a concerted solution: modification of the planned use/project/program could be by removing the harming aspect through adaptation to different type of use or compensation by the notifying States (YBILC, 1994, Vol. 2 part II: 116, sec. 116)

Part V of the convention is concerned with harmful conditions and emergency situations, art. 27 and 28. Differentiation of the two articles accrues from the fact that prevention and mitigation shall occur for harmful conditions to other watercourse states and the time flow of action in case of emergency situations. The causes of the latter are irrelevant.

The miscellaneous provisions stated in art. 29 – 33 (part VI) are considered with incidents and proceedings during that time. In times of armed conflicts, the protection of watercourse installations, constructions should be safeguarded by international law, but applies only for states being bound by laws that apply during times of armed conflict[27]. If armed conflicts or the absence of diplomatic relation prevent cooperation, data and information exchange and notification indirect methods should be applied according to art. 30, which means communication possibilities such as good offices of international organizations, ceasefire commission or third countries should be made use of (YBILC 1994 Vol. 2 part II: 131 et seq.). Contingencies where data and information exchange are in opposition to national defence or security of a watercourse state are covered by art. 31. In this context, cooperation in good faith and the maximum amount of information has to be revealed regarding the watercourse conditions. In the event of suffering significant harm as a result of activities of a watercourse, art. 32 grants non-discriminating access to judicial and administrative bodies as well as asserting a claim in the damaging state.

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[27] Examples international conflicts: art. 23 Hague Conventions, poisoning of water supply; art. 54 Protection of objects indispensable to the survival of the civilian population Geneva Conventions 12 August 1949 Additional Protocol I; art 14. Protection of objects indispensable to the survival of the civilian population Geneva Conventions 12. August 1949 Additional Protocol II and art 15. Protection of works and installations containing dangerous forces of the latter (Geneva Convention Additional Protocol I and II; YBILC 1994 Vol. II part. 2: 130, sec. 3).

The last art., 33, in part VI lists gradual prevention and solution of disputes by peaceful means (McCaffrey, 2001: 515). The final part VII, contains art. 34 – 37, lays down the period of signature (art. 34) and instruments for being bound by the convention and the Secretary General as the depository of the ratification, acceptance, approval or accession record (art. 35). The convention enters into force when the thirty-fifth instrument is deposited and ninety days have passed since then (art. 36). Listing the official languages of the United Nations completes the convention in art. 37.

The convention is accompanied by the arbitration procedure in the annex, which has to be carried out in case of conflict, and is a precondition for the conflicting parties that agreed on submitting the dispute to arbitration (Schroeder-Wildberg, 2002: 44).

The UNWCC lacks in four points. Firstly, international law takes effect on sovereign states only. Secondly, the convention is only binding to states that ratified or consented. Third, the terms and articles of the convention are vague and contradicting, bearing the risk of varied and conflicting interpretation (depending on national interest). Fourth, due to the many international instruments and the lack of the United Nations in general, no enforcement mechanism exists, which underlines the content and aimed testimonies by the world community. Legal experts views on the effects of the convention are multiple, ranging from fully denying and eliding positive contribution to dispute resolution over uses to the point of positive effects (Schroeder-Wildberg, 2002: 47) [28.]

[28] Biswas (1994) argues with the voting behaviour of states, or more specifically, basin states with conflicts, with at least one nation abstaining, voting against or were absent during the decisive phase. He maintains that the UNWCC will not have any or no positive effects. Demeter takes the line of having

Difference ILA Helsinki Rules 1996 in relation to the UNWCC

The difference between the ILA Helsinki Rules of 1966 and the UNWCC is a more stringent and detailed text in the ILA text (Tanzi in Bošnjaković, 2005: 33). The chosen words and scope of the articles of the UNWCC is limited, unspecified and lacks explicit duties of states as well as a punishment mechanism in case of non-compliance that does not exist. The United Nations' consensus approach, and some states fear impairing their sovereignty, resulting in the outcome aforementioned. The existing opinion of the Helsinki Rules as being too old to be considered when discussing key issues of international water law[29] does not limit the scope of the research. The Nile basin nations point of view on the two legal instruments/frameworks is important to note. Doubts of topicality are irrelevant due to the chosen objective by the author.

The most contradicting and discussed principles in international law are reflected in art. 2 UNWCC (watercourse) in relation to art. II Helsinki Rules (drainage basin); art. 5 UNWCC (reasonable and equitable) in relation to art. IV Helsinki Rules (reasonability and equity); art. 6 UNWCC (determining factors reasonability and equity) in relation to art. V (determining factors reasonability and equity) and the no harm principle

effects to a certain extent. The supporting facts are that all basin states have to be party, and no meetings of the parties are intended. Several authors consider the convention positive (McCaffrey, Tanzi, Scheumann, Schiffler) especially as a major step forward since it was the first document that reflected the large international consensus (nations opinion of draft articles and working discussions). Other arguments are that the convention progressively develops international water law by the authoritative guideline function and spontaneous compliance by non-party states, which may over time lead to creating new customary law (Schroeder-Wildberg, 2002: 47).

[29] McCaffrey, 1995: 404 cited in Schroeder-Wildberg

established in art. 7 of the UNWCC and equivalent art. V Helsinki Rules are only relevant for the research.

Table 1: Comparison: Helsinki Rules 1966 to 1997 UNWCC

1997 UNWCC	**Difference** transboundary water body	**1966 Helsinki Rules**
Art. 2 lit. a) "Watercourse" means a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus;	difference is the application of watershed as limiting scope	Art. II An international drainage basin is a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus
Art. 5 Para. 1 "... U(u)tilize an (...) in a equitable and Para. 2 "..participate in use, development and protection (...) in an equitable and reasonable manner."	difference is the beneficial uses of the water of the international drainage basin and the use of the internation watercourse	Art. IV Each basin Sates is entitled, within ist territory, to a reasonable and equitable share in the beneficial uses of the waters of an internatinoal drainage basin
Art. 6 Factors relevant to equitable and reasonable utilisation		Art. V Determination of reasonable and equitable share in beneficial uses by 11 factors
a) Geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character	drainage area is subsummised as geographic factor	1. The geography of the basin, including in particular the extent of the drainage area in the territory of each basin State
	water contribution of each basin State is subsummised as hydrological factor	2. The hydrology of the basin, including in particular the contribution of water by each basin State. 3. The climate affecting the basin
b) The social and economic needs of (...) State concerned	Alike	5. The economic and social needs of each basin State;
c) The population dependent on the watercourse in each watercourse State	differs in the dependencies	6. The population dependent on the waters of the basin in each basin State;
d) The effects of the use or uses of the watercourses in one (...) on the other."	Compensation is being de-emphasized by yet another factor	10. The practicability of compensation to one or more (...) as a means of adjusting conflicts among uses;
	prevention of substantial injury to co-basin State is an effect of watercourse use	11. The degree to which the needs of a basin State my be satisfied, without causing substantial injury to a co-basin State.
e) Existing and potential uses of the watercourses;	Past, potential utilization is part of existing utilisation	4. past utilization of the waters of the basin, including in particular existing utilization,
f) Conservation, protection, development and economy of use of the water resources (...) and the costs of measures taken to that effect;	Comparative costs of alternative means is one out of 3 factors economic and social needs of each watercourse maybe satisfied to less extend no consideration of other water resources available within the State	7. The comparative costs of alternative means of satisfying the economic and social needs of each basin State; 9. The avoidance of unnecessary waste in the utilization of waters of the basin;
g) The availability of alternatives, of comparable value, to a particular planned or existing use.	alternatives are considered from demand site of view, reflects the UNWCC scope alternatives are considered from supply side	8. The availability of other resources
Art. 7 Obligation not to cause significant harm		Art. V No harm is one ouf of the factors, that determine reasonable and equitable share in beneficial uses

Source: adapted from Abu-Zeid, Water Resources Impact, 2001

3.5 Existing Treaties

To understand the present, the past has to be explained. For further comprehension, the 1929 Agreements between Great Britain and Egypt as well as the 1959 Treaty will be outlined.

[30]To a great extent, the Nile history in the British era is one of hydropolitics, which stretched from the Mediterranean to the "…heart of Africa". The objective of imperial expansion was mainly geared toward controlling the Nile as a resource and European rivalry. The Occupation of Egypt in 1882 was followed by Uganda in 1894 and Sudan between 1896 – 98, and control of the latter was *"... a deliberate kind of water imperialism"*. From the British point of view, conquering Ethiopia was of marginal strategic importance as they thought that the area south of Lake Victoria and east of Lake Albert contribute only marginally to the Nile. Moreover, strong Ethiopian military resistance and other European countries diplomatic interference also posed a challenge. During the time of the British "river empire", substantial modernization in controlling the river and the entire river economy occurred, influencing other economic sectors closely interwoven with the diverse utilizations of the Nile. The British Nile strategy[31] – without doubt – stimulated development and provoked conflicts with local, regional and global historical importance[32].

The development of the central African lake areas was only allowed to a mild extent, since the headwaters of the White Nile were considered more as "water pipelines" ensuring the Egyptian irrigation during the summer period. Economic and political activities were driven by the British perception of the riparian countries contribution to

[30] The whole passage is taken from Tvedt (2010: 3).

[31] Colonial strategy for Nile management: boosting agricultural, in particular cotton, production and thereby the economy, by ensuring water for Egypt through upstream activities. This protective positioning helped secure Britain's position on the Suez canal, and at the same time, allow pressure to be applied in case of an Egyptian revolt against British occupation (Tvedt, 2010: 4).

[32] Partially a result of and closely linked to the British Nile policy global political events are: partition of Africa, collapse League of Nations, breakup of the British Empire and – linked hereto – emergence of new African states (Uganda; Kenya; Sudan, sovereign, independent of Egypt) in Tvedt, 2010: 3.

the water basin from a hydrological and geographical perspective. It meant for the area south of Lake Victoria and east of Lake Albert being of less or vanishingly low strategic importance, because their contribution to the river flow was considered low. The Blue Nile could not be used and developed during the British period, as no sufficient technology for doing so existed at that time (Tvedt, 2010:).

3.5.1 Egyptian-British exchange of notes of 1929

On 7th May of 1929 an exchange of notes took place between the British high commissioner in Cairo and the president of the Egyptian council of ministers both acting on behalf of the British and Egyptian government[33]. A complete superiority of the Egyptian water rights was agreed upon (Oswald, 1999: 36). Historical incidents underline the assumption that Sudanese participation was not intended[34].

The agreement granted Egypt 48 BCM/ yr and 4 BCM/ yr to Sudan, while 32 BCM/ yr out of 84 BCM/ yr were undistributed. The established rights and quantities granted were made under reservation of later revision. The future demands of Sudan were recognised (art. 2 (1) Nile waters Agreement 1929), with reservation to not infringe upon Egypt's natural and historic rights (art. 2 (1)). Sudan's use was excluded during the timely season and limited to surplus floodwater during the summer by retaining water through the Sennar dam. Egypt kept a veto right against all future hydraulic

[33] Egypt's independence was declared by Britain on 27. February 1922

[34] Sudan was ruled by Britain (and Egypt) during 1899 until 1955, based the Anglo-Egyptian condominium agreement, having supreme civil and military power over Sudan (Oswald, 1999: 32). All agreements concerning the Sudan were concluded by Britain until 1936. In addition, Egyptian nationalists criticized the implication of Sudan being an independent region of Egypt. The latter was made in a report, which aimed at establishing a Nile commission with an Egyptian, Sudanese and a neutral deputy.

projects in Sudan and all other British colonies along the Nile in art. 4 lit.b)[35]. The British government was concerned about Sudan's "well-being" and had no intention of infringing upon the natural and historic rights of Egypt's Nile water, art. 3 of the 1929 agreement (Knobelsdorf, 2006: 6). An integral part of the exchange of notes became the Nile commission report of 1925 in art. 3. Article 4 of the British Egyptian agreement authorized personnel of the Egyptian ministry to collect data in Sudan (lit. c) and legitimated Egypt to establish and maintain works within Sudan for increasing the water demand for its own interests (lit. d). According to art. 4 lit. e) Britain was supposed to use their good offices to enable the arrangements of art. 2, 3 in all of the British regions, nowadays Tanzania, Kenya and Uganda (Oswald, 1999: 38).

3.5.2 Agreement „For the Full Utilization of the Nile Waters" of 1959

The Egypt Interior Minister and the Sudanese Minister of Information and Culture signed the agreement of full utilization of the Nile waters in Cairo, on 8. November 1959, which came into force on 12 December 1959. The dispute settlement with Egypt over the Nile water was based on the 1929 agreement made under Anglo-Egyptian Condominium (Collins, 1996: 269). The construction of the Aswan dam for irrigation purposes, energy production and flood control as well as quantitative water amounts is addressed by the contract.

Both parties acknowledged present acquired rights in art. 1. The water quantities received by Egypt amounted to 48.5 BCM (art. 1 para. 1) and 4 BCM (art. 1 para. 2) to Sudan (Kliot, 1994: 83, Oswald, 1999: 48). The contract backed up the Aswan dam

[35] The whole passage in Oswald, 1999: 37

construction (art. 2 para. 1). Damages caused to Sudan were satisfied by damages of 15 mill. EGP (art. 2 para. 4) for relocation and the flooding in connection with the dam construction. In return, Egypt agreed upon Sudan's plans of constructing the Roseires dam (art. 2 II). This approval led to the World Bank and other lenders supporting the Sudan project. The net benefit of the Sudd el Aali reservoir (art. 2 IV) was established at 22 BCM, with 14.5 BCM for Sudan and 7.5 BCM for Egypt. As a result of art. 2, 55.5 BCM was allotted to Egypt, while Sudan received 18.5 BCM. Nevertheless those amounts were also "…subject to revision (…) to be agreed upon after starting the full operation" according to art. 2 para. 5 (Collins in Oswald, 1999: 49). The amount of water that was derived from mutual financed projects had to be divided equally as well as the implementation costs occurring (art. 3 para. 1 clause 1)[36]. In the agreement the establishment of a Permanent Joint Technical Commission (PJTC) was stipulated (art. 4).

The 1959 Agreement provided as follows: a) Egypt to maintain its acquired right to 48 billion cubic meters of Nile waters, Sudan to 4 BCM at the Aswan checkpoint; b) Egypt to construct the High Dam, and Sudan a reservoir on the Blue Nile; Sudan to undertake a number of projects seeking to multiply water yield and check the waste from the Nile tributaries and basin with the benefits to be equally shared between the two countries; the two countries to create a joint Nile water committee. The agreement set Egypt's share at 55.5 billion cubic meters per year and Sudan's at 18.5 billion cubic meters per year.

[36] Hereof included is the so-called Jonglei project (Oswald, 1999: 52)

3.5.3 Present legal effect of the 1929 and 1959 agreements

Biswas (1994: 181) states that the non-binding effect and the recognition of rights of the riparian countries on the concluded bilateral agreement. The upstream riparian countries were considered in art. 5 of the agreement. art. 5 para. 1 clause 1, 2 state, that in case "… it becomes necessary to hold any negotiations.." the commonly agreed position of Egypt and Sudan should be forwarded and advocated by the PJTC, which also had to prepare a basis for decision-making by the contracting parties. This only referred to conservation projects in favour of Egypt and Sudan, whereby the PJTC was empowered – in case of agreements with other Nile states on construction of works on the headwater – to projecting, implementing and operate the projects covered by agreement (art. 5 para. 1, clause 3, 4). Though the sovereignty of the other Nile countries was paid tribute, the project implementation needed their consultation and approval. Egypt and Sudan are aware of possible claims by other riparian states to a share of the Nile water (art. 5 para. 1). The acceptance of rights is not given and depends on the "good will", and instead Sudan and Egypt commit themselves to study the claims made by riparian states and agree on a common position.[37]

The treaty instigated a quarrel between Egypt and Sudan and the other Nile countries, but also led to cooperation (Biswas, 1994: 181). It is argued that political quarrels due to the treaty are based on solid ground, which does not account for technical and legal discords. The downstream position of Egypt and Sudan do not infringe the upstream countries in anyway. From the legal point of view, upstream countries' concerns are not justified, since the bilateral contract does not affect the rights of third parties neither

[37] The passage is taken from Oswald, 1999: 53

does evidence exist that any harm was caused nor were the rights of upstream states infringed upon regarding water requirements (Biswas, 1994: 181). Since then, the treaty encouraged unilateral actions, hindered data exchange and slowed down cooperation (ibid). The agreement is criticized most for its *de facto* exclusion of the other upstream nations, who were neither consulted nor whose shares were explicitly considered (Howell, Tvedt, Ule in Oswald, 1999: 54). An explicit statement to the individual binding force of the Nile Basin states are done below.

One finds in the international law literature with divergent opinions on the ongoing validity of the Nile basin agreements. Oswald (1999:211) states that principally eight theories can be identified for contracts being null and void, demised or conveyed.

Table 2: Legal analysis and approach to state succession with respect to treaties

Theory	Assumption	Result
1 Principle of continuity	Might not have merged, because no explicit statement of approval of continued validity after independence (Tansania, Uganda, Kenia)	Termination of contract
2 Localized treaties	special territorial regime is established, binds successor state, in interest of international stability	Treaties continue in force
3 Political localized treaty	Sucessor state is not bound in case of state succession	Treaty is in effect pending, due to the duty of adjustment of contract
4 Clausula rebus sinc stantibus (Frustration of contract)	during the contracting process the independence was unpredictable. The substantial change influences the dutied imposed by the contract	Treaty is in effect pending due to the duty of adjustment of contract
5 Principle of Independence	a state becomes self determined	Termination of treaty
6 New contract by implication	In case of frustration of contract a new pending agreement is concluded by implication	Treaty is in effect pending due to the duty of adjustment of contract
7 Overriding international customary law	"Old" treaties are not valid anymore	Termination of contract
8 Long lasting state practice	Local customary law established, which equals contract continuance	Claims of the independent states remained undone, results in continued customary law for all contracting parties

Source: Oswald, 1999: 221 et seq.

The position of state succession is the starting point for the discussion of validity. The author follows the theory of political superimposed localized contracts. This theoretical approach does not directly on indirectly imply that the author takes the position of any of the Nile Basin countries. The effect of this theory is not bound to contracts concluded in colonial times if the political interest of the contracting parties had priority. A transition agreement for state succession of the Nile riparian countries does not exist for the period of decolonization. A further argument for the underlying theory is that

international law supports legal certainty and international order, which means that states can rely on legal position justified *on rem*. Radical approaches are contravening to international law (Oswald, 1999: 230). The prevailing view in literature agrees that not politically superimposed local agreements are still valid, means *argumentum e contrario* - in the present case – that politically superimposed local agreements are invalid. The political motivation of the 1929 contract can be extracted of the British response, stating that Government of the United Kingdom is safeguarding Egypt's natural and historic rights as fundamental principles of British policy. A legally motivated decision to conclude the contract can thereby be excluded for the 1929 agreement[38].

3.6 The Nile Basin Initiative

3.6.1 History

The Nile Basin Initiative (NBI) is the end result of a series of institutions that date to the 1960s, which were: Hydromet, UNDUGU, Nile Basin Integrated Development (NBID), Technical Cooperation Committee for Promotion of the Development and Environmental Protection of the Nile Basin (TECCONILE), Kagera Basin Organization (KBO).

The Hydrometeorological Survey of the Equatorial Lakes Victoria, Kyoga and Albert was established in 1967 by Kenya, Egypt, Sudan, Tanzania and Uganda in cooperation with the United Nations Development Program (UNDP) and the World Meteorological

[38] For further arguments see Oswald pp. 235 – 237.

Organization (WMO). Ethiopia became an observer rather than a member, which aimed at studying, analysing and disseminating meteorological data to member states. The water balance of the three lakes catchment area was evaluated to control and regulate the water level and flow. The comprehensive studies carried out included hydrological surveys on development potential on the basins of Kagera, Nyando, Kafu, which comprised outcomes as the suitability for constructing hydroelectric power dams and stations, flood flow regulation for reducing evaporation losses, irrigation potential and other fisheries and tourism (Ngowi in Tvedt, 2010: 66). The Undugu, *Ndugu* - Swahili for brotherhood (Adar, 2007: 8), founding states were Egypt, Sudan, Uganda, D.R. Congo and Central African Republic[39] in 1983 (Oswald, 1999: 366). In this context, Ethiopia, Kenya and Tanzania had observer status. The project lasted for about ten years (Ngowi in Tvedt, 2001: 67). The objective in this situation was to cooperate in different fields, which targeted economic and political cooperation in the Nile basin, and is considered to be a precursor for an economic community in the basin (Polkehn, Chevenert in Oswald, 1999: 367). Both projects, Hydromet and Undugu were aimed at creating an institution dealing with the Nile question, failed because of Ethiopian and Kenyan long-winded political resistance (Oswald, 1999: 369).

The Kagera Basin Organization was established in 1977 by Burundi, Rwanda, Tanzania, Uganda and UNDP, whose objective was to place the concept of regional planning into operation. Studies were conducted for 14 priority projects (transport, communication, energy, agriculture, information, training, amongst others). Certain important projects failed to be realized because of a lack of financial support. This led

[39] No Nile riparian country (Oswald, 1999: 366).

to the dissolving of KBO in 2004 because of, amongst others, political and ethnic conflicts between and within the member countries (ibid, 68).

The TECCONILE was founded in 1992 by the initiative of Egypt and the Canadian International Development Agency with the founding members Sudan, Rwanda, Tanzania, Uganda and the D.R. Congo. Burundi, Eritrea, Ethiopia and Kenya joint on observer status. The decision of not becoming a full member was due to the strong technical focus of TECCONILE (Mekonnen, 2010: 427). The short-term objective is to assist the member states in developing national master plans and including them into the entire Nile basin action plan. Capacity and infrastructure creation, including optimizing water use, was also part of the short-term planning. The long-term plan aimed at conserving and negotiating the sharing of water resources in an equitable manner (Ngowi in Tvedt, 2001: 67). The Nile River Action Plan included 22 projects on water resource management, cooperation on a regional level, institution building, training and environmental protection on Lake states (Collin, d.n: 8). Until 1998, the contribution to the Nile Basin action plan was limited (Nyarmurundu in Ngowi, 2001: 67).

International experts on river basins, International Advisory Group for the Nile Basin (IGA), met in 1997 to review the TECCONILE action plan. One of the critics and recommendations led to the creation of the Nile Basin Initiative. The 22 uncoordinated TECCONILE projects were consolidated under one umbrella, promoting the action plan by the shared vision program. The future development of the Nile would now be determined by policies acceptable to the basin states “…to achieve sustainable socio-

economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources."(Collins, d.n.: 11,12). New to the NBI approach, was the starting point from a equitable utilization management perspective (Collin, d.n.: 12,13): "... All the actors (…) also know that extolling cooperation also sits well with the international donor community".

The Nile Basin Initiative currently works with two vehicles: the Shared Vision Program (SVP) and Investment Program. The Shared Vision Program consists of eight projects, the last six of which are completed according to the NBI: Water Resources Management Project, Regional Power Trade Project, Applied Training Project, Confidence Building and Stakeholder Involvement Project, Shared Vision Project, Socio-economic and Benefits Sharing Project and the Transboundary Environmental Action Project.

The Subsidiary Action Programs are aimed at enabling the member states to get involved by using the existing trust and cooperation so as to implement the investment programs (NBI, 2010). Furthermore, breakdown of the Investment Program is made into Eastern Nile Subsidiary Action Plan (ENSAP) and Nile Equatorial Lakes Subsidiary Action Plan (NELSAP), which are also interconnected with the Shared Vision Project. Members of ENSAP are Egypt, Ethiopia and Sudan, which aims at developing the water resources of the Eastern Nile basin according to the principles of sustainability and equity so as to ensure prosperity, security and peace. The NELSAP and ENSAP seek to achieve economic growth and therewith eradication of poverty and reverse environmental degradation (NBI 2010). The Natural Resource Management and

Development Program is the first out of two subprograms, while Power Trade and Development Program is the second. The first is sub-divided in the following projects: Lake Edward and Lake Albert fisheries, River Basin Management, Regional Agricultural Program, water-hyacinth abatement in the Kagera River Basin Project.

The integrated approach of the Nile water management might eventually “level the playing field” and reduce the existing asymmetries between the downstream and upstream countries (Jägerskog and Phillips in Cascao, 2009: 262).

4. Results

4.1. Tanzania

4.1.1 General information

Tanzania is characterised by (80%) woodland, grassland and bushland out of the total area of 945 090 km^{2,} and highlands in the north and south. The areas that are cultivated amount to 40 per cent (40 mill. ha) of the total land area. In reality, (in 2002) 13 per cent were cultivated, whereby 1.1 mill. ha were used for permanent crops, generally 4 mill. ha were arable. The majority of the 37.7 mill. inhabitants live in rural areas (63%) and inland. These are mainly affected by poverty. The national poverty rate is about 36 per cent. Poverty in urban areas grew along with rapid urbanization. The population density makes up 40 inhabitants per km2. Improved drinking water sources (2002) were used by 92 per cent in the urban and by 62 per cent in the rural area (AQUASTAT, 2005).

The average daily temperature in the humid coastal area is around 30°C. The climate is tempered by the sea breeze in the hot period between October until March, in the coolest period between June and September the temperature drops down to 25°C. In the Kilimanjaro region, the temperature varies from 22°C in December until March and 15° C in May until August (AQUASTAT, 2005).

Tanzania shares the following three lakes with the following countries: Lake Victoria is shared with Kenya and Uganda and is part of the Nile River basin; Lake Tanganyika is shared by Burundi, D.R. Congo, Zambia and belongs to the Congo River Basin; Lake Nyasa (Malawi) is shared with Malawi and Mozambique and is part of the Zambezi River basin. The United Republic of Tanzania's share of the rivers is 51, 41 and 18 per cent. Tanzania is an important riparian state, since Lake Victoria and its tributaries are mainly contributing to the Nile, which consists of nine drainage basins[40]. The dependency on the waters of the Nile basin is small, yet the average annual rainfall is less than 800 mm in half of the country. The climate is tropical along the coast and temperate in the highlands. The serial dry period in the northern and central part of Tanzania lasts for seven month, which is hampered by the inconstant river flow in these areas. Perennial river flow and average annual rainfall of more than 1,000 mm accounts for the rest of the country (Tvedt, 2010: 59). The renewable water resources amount to 93 km^3/yr, of which an amount of 30 km^3/yr is estimated to be groundwater resources (confined groundwater: 26 km^3/yr). The groundwater resources are the main water source for the low-precipitation area in central and northern Tanzania[41]. The existing

[40] Lake Victoria basin (part of the Nile River basin); Pangani River basin; Ruvu/Wami River basin; Rufiji River basin; Ruvuma River and Southern Coast basin; Lake Nyasa (Lake Malawi) basin (part of the Zambezi River basin); Lake Tanganyika basin (part of the Congo River basin); Rift Valley (basins (Lake Eyasi and Bubu depression; Lake Manyara; Lake Rukwa basin) (AQUASTAT, Water report 25, 2005).

[41] Dry regions: Dodoma, Singida, Shinyanga, Tabora, Mwanza, Mara, Arusha, Coast and Southern Kilimanjaro.

dams – mainly small scale – amounted to 21 in the 1970s, which were geared toward use for livestock, irrigation and municipal water supply. It is stated that dam construction is limited due to hydrological and topographic conditions of the country. The water consumption was estimated to be 5,142 mill. m^3 (2002), whereby the agricultural sector consumed almost 90 per cent (4,624 mill. m^3), the municipal water supply took up 493 mill. m^3. The water used on the mainland for irrigation purposes is surface water, while ground water use is marginal (0.2 %). The most common irrigation method is surface irrigation, applied mainly by small-scale farmers. The distribution applied: lined and unlined canals, furrow and basin methods. The second most common method is the application of sprinklers, which are used by only a few large-scale commercial farmers. Drip irrigation is the most water saving method, but is rarely used.

4.1.2 Economy and agriculture

The economic development and growth was the focus after independence. The Arusha Declaration of 1967 proclaimed African socialism, which centred on the development of the existing natural resources. Many comprehensive reforms have taken place since the mid 1980s regarding the management of its economy and other spheres of state politics. This strategic focus led to a market economy. The shift towards private sector activities did not have a significant impact on the country's status as a Nile basin country.[42]

[42] Chapter according to Tvedt, 2010: 61.

Economic growth is lead by the agricultural sector, which represented 43.4 per cent of the 9.9 billion USD Gross Domestic Product (GDP) in 2003, and followed by the new increasing growth in the mining and tourism sectors. The biggest GDP sector provides 79 per cent of the economically active population (14.7 mill) with employment, of which the majority are female workers (54%). The agricultural sector consists of 90 per cent small-scale farming, while the remaining 10 per cent are made up of medium and large-scale farming. The cropping pattern is dominated by maize with more than 0.5 mill. ha "... over recent years", followed by sorghum, millet, paddy, wheat, sweet potato, cassava, pulses and bananas. Out of the total of exported agricultural goods (in 2001), green coffee, cashew nuts and tobacco represented 41 per cent, whereas wheat and palm oil are imported. Self-sufficiency is only achieved for non-cereals. The supply of staple-food crops varies within the country from constantly running short to self-sufficiency and surpluses. The rain-fed cropping is conducted in the short rain season (*Vuli*), the long rain season (*Masika*) and a mix of long and short rain season (*Musumi*)[43].

4.1.3 Foreign Policy

[44] Tanzania's foreign relations are characterized by good cooperation with states in the region and important donor countries and institutions, and the country is actively engaged in the African Union and the United Nations. It adheres to the non-aligned movement, which nowadays understood as a tool for south-south cooperation to maintain interests. Good relations are kept with the eight neighboring countries; Kenya,

[43] Information is taken from AQUASTAT 2005. The so-called *Vuli* occurs from September/October to January/February; the *Masika* in February/March to June/July and the *Musumi* from November to June.
[44] Auswaertiges Amt, October 2010; U.S. Department of States, June 2010.

Uganda, Rwanda, Burundi, the Democratic Republic of the Congo and Malawi. Amicable relations exist with neighbors like Mozambique and Zambia. South Africa is nowadays one of the country’s most important trading and business partners. Also of importance is the East African Community, in which a close relation is aimed at the political, economic and legal sphere as well as common institutions, which is very similar to the system of the European Union. The headquarters is based in Tanzania; two of the founding members are the neighbouring countries Kenya and Uganda. A tariff union has been in place since 2005. The common market has been in force since July 2010, which is similar to the European Union in which labour, goods, services and capital enjoy the freedom of movement. Tanzania is also a member of the SADC.

Tanzania has a moderate role in the Great Lake region conflicts, and a significant impact in the peace talks, such as ending the conflict in Burundi. In 2006, a cease-fire was signed in Tanzania between the Burundi government and rebel group. The country accepted about 1 million refugees from Burundi, Rwanda and Congo. In 2009, Tanzania naturalized 162,000 refugees. The country supports the Lusaka Agreement regarding the conflict of the D.R. Congo, and in 2010, there have been about 60,000 Congolese refugees living on Tanzanian territory.

The International Criminal Tribunal for Rwanda is based in Arusha, which is responsible for coming to terms with the legal past of 1994 (UN, DHL 2010). It’s strong, demanding role in the United Nations – objection of the veto power of permanent member of the Security Council – is further underlined by its demand of stronger consideration of interest of Africa’s emerging countries and support of extending the Security Council for the goal of equity through geographical representation. The third Deputy Secretary-General is the former Tanzanian Minister for

Foreign Affairs and International Cooperation Dr. Migiro, who was also the first woman to hold the office since independence in 1961 (UN, SG 2010).

4.1.4 Tanzania and the Nile Basin

Tanzanian projects that use the Nile waters are: Kahama water project and the use of the Lake Victoria for mining purposes. The governmental financed project aims at supplying the Kahama district with water, pumped from Lake Victoria, for domestic purposes. Several feasibility studies have been carried out since 1910, but the governmental financed water supply project only started in 2001[45]. After the denial of finance by the World Bank, several donor contracts were awarded to Tanzanian, Kenyan, Chinese and Saudi Arabian companies. The procedure seemed transparent as described by Tvedt. The projects comprises: the building of an extensive pipeline system and road system, water filter stations, pumping stations, construction of water storage facilities, including water towers and the power supply of the diverse water installations. Furthermore, it includes the expansion of the existing electricity station and extension of the electricity supply kit. It is projected to serve 45,000 people and 54 villages, including the supply for livestock until 2017 and backing up the capacity of 80 million litres per day. Plans exist for an expansion of the water machine in 2017 until 2027 up to a capacity of 120 million litres per day, meeting the needs for 1 million people with water from Lake Victoria.

[45] First recognition of the water potential during the German colonial times; a second time in 1971 – 1973 by Tanzania in cooperation with the Netherlands. The aforementioned feasibility studies were unsuccessful nor were results reported (Tvedt, 2010: 63).

The project faces problems, such as frequent power rationing, the negative impacts of an increase of water-hyacinth growth and inadequate funding, which leads to interrupted construction works. Possible impacts to the water pumping by changing the water level of the Lake is denied by the government, referring to the previous calculations for the lowest recorded water level. The projects impact on the water level is to be neglected only when used for domestic purposes. The Lake Victoria water is used in diamond and gold mining and for the water supply of the village around the mining area, which expresses the will of expanding the usage of natural resources. The gold and diamond export industry is the major source of foreign exchange (90 – 94% of total mineral export in 2001/02). The media consider the Lake Victoria project as „contravention of the two treaties colonial Britain signed (...)“. The Tanzanian government is well aware of the sensitive issue of wide-scale water use from the lake without consulting Cairo (Mekouar in Tvedt, 2010: 65).

Tanzania participates in five major cooperative development initiatives on the Nile basin and the sub-basin “...has hardly begun to be tapped“, namely (Tvedt, 2010: 56): Hydromet, Undugu, Technical Cooperation Committee for the Promotion of the Development and Environment Protection of the Nile Basin (TECCONILE), Kagera Basin Organisation (KBO), NBI. The four major water resource management agencies are the: National Water Board, an autonomous organization financed through users and water pollution fee, and reports to the Ministry; Basin Water Boards, which is financed through users, and reports to National Water Board; Sub-catchment and Catchments Committee, which carries out Basin Water Board functions; Water User Associations, based on membership of local water users.

The NELSAP Natural Resource Management and Development Plan and especially the river basin management project are applied for the Mara, Kagera and Sio-Malaba-Malakisi river in Tanzania. For the three rivers, the following goals are supposed to be achieved: a sustainable framework for joint management and development shall be established within the Nile basin cooperation, investment plans conceptualized for the basins, carrying out of feasibility studies for investments and the financing possibilities for small (water supply, irrigation, transport) and large-scale projects are to be identified. European development agencies are currently funding the transboundary IWRM project for each of the three rivers over a period of four years, all of which started in 2006. The listing of NELSAP projects in Tanzania is inconclusive.

Tanzania's participation and membership in TECCONILE is important for itself and for downstream countries. The capacity building and technical equipment for managing the basin water is provided by TECCONILE. Tanzania's food crisis, caused by periodic droughts, calls for proper water resource management through tackling food production within the country and shifting to irrigated agriculture as well as supplying the population with potable water minimising and eradicating the problem of water-borne disease[46].

[46] Wastewater service coverage is 10 % (2000) up to 17% (2004), and 25% of daily wastewater is collected and disposed through sewerage systems in urban centers; no figures for rural areas exist. The water supply in this instance was 48.5% (2000) up to 63.5% (2004). GTZ, Factsheet 12/2005

4.1.5 The 1959 Nile Waters Agreement between Egypt and Sudan

Tanzania did neither explicitly object to the treaty nor laid a claim. The agreement between Egypt and Sudan of 1959 is valid and does not prejudice in any circumstances the rights of the upstream states regarding the equitable sharing of the Nile waters (Oswald, 1999: 292).

4.1.6 The 1934 British-Belgian Treaty

The British-Belgian treaty became obsolete after the independence of countries whose territories are affected by the contract, which are Rwanda, Burundi and Tanganyika. The Tanzanian position to state succession and the binding effect is reflected by the above-mentioned Nyerere-Doctrine, which would result in the same effect as the 1929 and 1959 contracts, since the pending validity of contract was taken as a basis and the explicit termination was not issued by Tanzania. The latter has not decided since the 1934 contract merged in the Agreement establishing the Kagera Basin Organisation[47] in 1977 (UNEP, 1999: 36; Oswald, 1999: 292).

4.1.7 Statement of Tanzania on existing treaties

In December 1961, the Prime Minister Nyerere stated to the Secretary General of the United Nations that:

[47] Tanzania, Rwanda and Burundi concluded an agreement for the territory of the Kagera basin exploiting the hydro-electric potential and natural resources.

> …regards the bilateral treaties validly concluded by the United Kingdom on behalf of the territory of Tanganyika, or validly applied or extended by the former to the territory of the latter, the Government of Tanganyika is *willing to continue to apply within its territory*, on a basis of reciprocity, the terms of all such treaties *for a period of two year* from the date of independence (i.e. until December 8, 1963) unless abrogated or modified earlier by mutual consent. At the expiry of that period, the Government of Tanganyika will regard such of those treaties, which could not according to the application of the rules of customary international law, be considered as otherwise surviving, as *having terminated* purporting to bind the countries under British Administration are not binding on Tanganyika (Oswald, 1999: 226).

The binding effect to the 1929 agreement is explicitly denied by the note of 4th July 1962. The so-called Nyerere doctrine rejected the further binding effect to the 1929 Nile treaty as being incompatible with its sovereignty and the fact of unjustified commitment of perpetuity effect by Great Britain. A further argument is that only the territories under British administration were supposed to be bound, resulting in *ipso facto* termination of the contract (Godana in Oswald, 1999: 226).

As a result, politically superimposed local agreements have to be terminated to become invalid, art. 24 VCSST. The 4th of July 1962 declaration is not binding. An explicit termination of the contract cannot be withdrawn from the statement. Furthermore, participation in adapting the 1929 contract was requested of Egypt. Tanzania did not explicitly terminate the contract, and furthermore, the argument of being bound by silence is not legitimate, because silence is no expression of declaring an intention. As a consequence, it can be said that the 1929 agreement is still pending and therefore still valid[48].

[48] Egypts note of 21. November 1963, stating the 1929 is still pending, was at neither time doubted nor answered by any of the upstream states

The fallback procedure by constructing that new customary law and therefore more recent law prevails, according to art. 30 II VCLT is disputed. An argument to the contrary is that art. 3 of UNWCC supports the continuity of existing treaties and the adaptation of contracts to new law development. The precedence of general norms, like the principle of equitable utilization depends on the specific interests and circumstances of the parties. The principle of equitable utilization cannot be seen as *ius dispositivum* (not mandatory), and since equitable utilization cannot be seen as mandatory character, it does not prevail the existing 1929 contract; therefore the new derived international customary law does not apply in this case. The 1929 agreement still applies to Tanzania.

4.1.8 The Helsinki Rules 1966

Due to the lack of data on Tanzania's position on the Helsinki Rules 1966, the author cannot draw any conclusions.

4.1.9 The UNWCC 1997

Upstream states behavior is normally determined by the principle of absolute territorial sovereignty having low to no environmental standards on the use of the transboundary watercourse. If defection as a second choice cannot be achieved, it aims at a comprising outcome (Schroeder-Wildberg, 2002: 31). Tanzania voted against art. 5 and 7, abstained on the Working Group voting as well as the voting on the whole Convention in the General Assembly (GA).

4.1 Ethiopia

4.2.1 General information[49]

Ethiopia is landlocked between Djibouti, Somalia, Kenya and Sudan. The altitude varies from 110 m below sea level (bsl) (Denakil Depression – NE) to 4600 m above sea level (asl) (Simien Mountains – N). The area of 1.1 mill. km^2 is covered by a topographical diversity, and consists of mountainous areas, plateaus and hilly plains to deep river gorges. Three main types of soil can be found: Cambisols[50] (highlands), Vertisols[51] (SE highlands, SW) and Regosols[52] (plateau, NE). The country is dominated by tropical Monsoon, and is divided in three climatic zones: cool zone (high plateau – W/E) with 7 – 12 °C (mean annual), temperate zone (1,500 – 2,400 m asl), hot lowlands (below 1,500 m asl) with 25° C (annual mean). The mean annual potential evapotranspiration varies in arid to semi-arid areas (1,700 – 2,600 mm) and dry sub-humid areas (1,600 – 2,100 mm). The rainfall varies from 2,000 mm (SW) to below 100 mm (NE) and

[49] Following information is based on information given by AQUASTAT, 2005.

[50] Cambisols: good for agricultural purposes and intensively used. High base saturation Cambisols in the temperate zone is one of the most productive soils on earth. Less fertile Cambisols (more acid) is used for mixed arable farming and for grazing and forestland. In highlands, especially where there are slopes, it is better used in forests. In dry zones on irrigated alluvial plains it is used intensively for food and oil crop production. In hilly regions, it is used for annual, perennial crops and grazing land. Cambisols are a highly productive type of paddy soils in alluvial plains with groundwater influence. From: FAO, 2007: 74.

[51] Vertisols: extensive agricultural uses (grazing, charcoal burning), smallholder post-rainy season crop production (millet, sorghum, cotton and chickpeas) to small-scale (rice) and large-scale irrigated agriculture (cotton, wheat, barley, sorghum, chickpeas, flax, noug, sugar cane). Large areas in semi-arid tropics still unused/used only for extensive grazing, wood chopping, and charcoal burning. Considerable agricultural potential needs adaptive management for sustained production. Extensive level plains have comparatively good chemical fertility supports reclaiming and mechanical cultivation of those soil area. Water management is difficult on this soils (waterlogging, stickiness, hardness, slow infiltration rate) but necessary for water control: improvement soil fertility and conservation. From: FAO, 2007: 95.

[52] Regosols: minimal agricultural significance (desert areas). Used for extensive grazing. In North America used for sugar beet and fruit trees and small grain production. Low moisture holding capacity needs irrigation (sprinkler, trickle), which is rarely economical - the downside in this case. Irrigation needed where rainfall of 500–1 000 mm p.a. for satisfactory crop production. Where rainfall exceeds 750 mm p.a. dry farming more economic. In mountainous regions better left under forestland. From: FAO, 2007: 89.

amounts to an average of 848 mm p.a. with high spatial and temporal variability. The agroclimatic zones are again split in three parts as follows:

- No significant growing period, little or no rainfall (E, NE, S, S and N lowlands);
- Single growing period and one rain season, duration of wet period decreases from south to north, February/March - October/November (W);
- Double growing period and two rain seasons (E, S, SE).

Ethiopia has substantial amounts of water resources, but the surface water potential is little developed. The twelve major rivers basins form four drainage systems: the Nile basin covers 33 per cent (Blue Nile, Baro-Akobo, Setit-Tekeze/Atbara, Mereb); the Rift Valley covers 28 percent (Awash, Denakil, Omo-Gibe and Central Lake), Shebelli-Juba covers 33 per cent (Wabi-Shebelle and Genale-Dawa) and North East Coast (Ogaden and Gulf of Aden basin) covers 6 per cent of the country. The Abbay basin, also called Blue Nile, Baro-Akobo and Omo-Gibes basin account for 76 per cent of the total runoff in comparison and 32 per cent of Ethiopia's territory. The mostly seasonal rivers receive 70 per cent of their total runoff between June and August, whereby the dry seasonal flow derives from springs. The very little explored and developed groundwater potential is estimated to be 2.6 to 13.5 BCM p.a (Dingamo, 2008). The Ethiopian lake area accounts for 7,000 km2, most of which is found in the Rift Valley and the majority are saline, except Lake Zway. Lake Tana is the source of the Abbay river in the Nile basin. Sources for large rivers and flood retention are large wetlands, also serving for groundwater recharge. The wetlands are critical resources, which provides nature with a high amount of biodiversity and are also essential to livelihood of local communities, by providing environmental services and socio-economic benefits. Hydropower (2 out of 9 large dams) is generated by small, medium and large dam reservoirs, which serves the

drinking water supply as well as irrigation purposes. Total dam capacity is estimated 5.56 km^3. Most of the water supply comes from groundwater, the future outlook is that 90 per cent of the population are supplied via groundwater until 2012, compared to 52 per cent at the time of the study (Dingamo, 2008). Water resources are “obviously” used mainly by the agricultural sector. The annual agricultural water use is estimated to be 5.2 km^3; water withdrawal for municipal and industrial purposes are estimated 0.02 – 0.33 km^3. Conflicting demands with growing concern arise in lowland rural areas, where the baseflow is used for irrigation purposes, without retaining water for ecosystem conservation. The Ministry of Water Resources elaborated a comprehensive Integrated Water Resources Management Policy, which was adopted in 2000, including the recognition of water as an economic resource, stakeholder involvement in the management process and role of water as a scarce yet vital socio-economic resource.

Most of Ethiopia’s 72.4 million inhabitants live in rural areas (84 %). As in most cities, the urban population grows rapidly due to natural increase and migration from rural migrations. The population density varies from 114 inhabitants (SW) to 7 inhabitants per $km^{2.}$ (NE). Most of the 2.9 per cent unemployed inhabitants live in rural areas. Improved drinking water supply varies from 81 per cent in urban areas to 11 per cent in rural areas. Sanitation faces a similar and even worse scenario, in which 19 per cent of the urban inhabitants are connected to disposal facilities versus 4 per cent for the rural population.

4.2.2 Economy and agriculture - threats

In 2003, the GDP was 6.6 billion USD, of which the agricultural sector made up 42 per cent. The annual growth rate was estimated (by the government) to be 9.9 per cent (U.S. Department of States, 2010). The agricultural sector has the biggest share regarding export of goods (85%), with coffee as main exported good (60 – 70 %). The economically active population works mainly in the agricultural sector (81%).

Ethiopia is highly dependent on international food assistance, which has takes place for over 30 years. This is mainly due to droughts, which affect more than 5 million people each year. The biggest challenge is a high population growth, which is expected to lead to 170 million inhabitants in 2050. The government's initiative to tackle this issue and interconnected related problems, is to change certain cropping patterns, and to shift to other sectors, such as the private sector and the "safety nets" strategy. The latter, launched in 2005, was supposed to end food aid dependency until 2008, which was aimed at agricultural development. Local population build wells and small irrigation systems, and participate in projects preventing soil erosion. In turn for these services, they receive food (IRIN, 2006). It is important to mention that a major hazard is the infection of the most economically productive inhabitants with HIV / AIDS[53], which is mainly threatening labour force, society and wellbeing as well as poverty reduction.

4.2.3 Foreign Policy

According to Ofcansky et al. (2006: 257), the foreign policy seeks to maintain territorial integrity and the "multiethnic polity as a viable Nation". Ethiopia's ideological

[53] The 2010 national fact sheet states that the age group of 15 – 49 year old make up 2.4 % of the whole population (urban: 7.7 %, rural 0.9 %). This important issue cannot be elaborated further. For more information see: etharc.org.

orientation changed under Emperor Haile Selassies' (*1930–1936; 1941–1974)* heavily reliance on the patronage of the United States, whereas President Mengistu Haile Mariam (1974 – 1991) sought the support of the Soviet Union. With the economic and military support from both countries, foreign and domestic policy goals were achieved. Ofcansky (2006: 257) states that the foreign policy of Ethiopia demonstrates that leaders "...consistently placed their perception of what was best for Ethiopia before all else". The relationship to Eritrea was warm due to the "…revolutionary struggle against the Derg" (US Department of States, 2010). The Eritrean attack in 1998 resulted in a bloody border war that was settled through the 2000 peace treaty. Since then, the territorial borders delimitation was declared in 2002, and the compensation for war losses are disputed and not accepted. According to the German Foreign Ministry, the situation is tense, but there has not been any intensification. The relationship with Somalia is characterized by an uncontrolled border region, by the Ogaden War 1977/1978, as well as by the rise of Islamic fundamentalism and possible effects of opposing parties, which take action from Somalian territory. Ethiopia intervened militarily in 2006, withdrew 2009 and declared cooperation with the new Somali government; an agreement was reached in 2010 with the interim government. The drive for stability within Somalia is further derived from an increasing amount of refugees due to Islamic-fundamental influence and insecurities stemming from it (Auswärtiges Amt, 2010). Ethiopia is trying to ameliorate its relationship with Sudan. A balance has been achieved since 1999, affecting the economic sector and border demarcation. The relationship with Djioubti is critical due to the highly imperative harbour access the country provides; and relations with Kenya are considered good (ibid).

Foreign relations with Egypt can become mildly tense, yet it is not clear whether it is simply political and diplomatic sabre-rattling. Statements against the current use of water and Egyptian's position are becoming increasingly reinforced. In 2005, the Ethiopian Prime Minister declared that "…the current regime cannot be sustained. It's being sustained because of the diplomatic clout of Egypt. Now, there will come a time when the people of East Africa and Ethiopia will become too desperate to care about these diplomatic niceties. Then, they are going to act." (BBC, 3 February 2005). The following are recent statements made by Prime Minister Zenawi's on abstention of signing the CFA as well as an analyst predicting a likelihood of a war erupting: "I am not worried that the Egyptians will suddenly invade Ethiopia," Meles told Reuters in an interview. "Nobody who has tried that has lived to tell the story. I don't think the Egyptians will be any different and I think they know that." Additionally he made a statement referring to the colonial treaties, to which Egypt and Sudan relate to: "The Egyptians have yet to make up their minds as to whether they want to live in the 21st or the 19th century." (Reuters, November 2010). It remains to be seen, whether or not the relationship remains "good".

4.2.4 Ethiopian position to agreements and customary international law

Ethiopia refused the validity of the 1891, 1902, and 1925 agreements as well as any further binding effect on treaties and customary international law with 1957 aide memoire. Through this aide memoire, Ethiopia claimed 84 per cent of the Nile water (Garretson and Chen in Oswald, 1999: 274).

A brief remark of the first two mentioned agreements will be made in the following section.

The 1891 protocol between Great Britain and Italy assured that no works are going to be built on the Atbara river. The Italian protectorate ended in 1896. The politically motivated contract was elided by Italy, which also re-established Ethiopia's sovereignty. Oswald states that it can be assumed that the contract is terminated, since Great Britain did not reply to the 1957 aide memoire. The treaty is thus invalid.

The 1902 treaty between Britain, Italy and Ethiopia is stated to be still valid from both the Egyptian and Sudanese perspectives. The treaty is still valid since art. 3[54] is valid in accordance international customary law. The argument is underlined by art. 5 and 7 UNWCC. Ethiopia's position on the doctrine of territorial sovereignty and the non-binding effect of international customary law is inconsequential. Through the 1993 Memorandum of Understanding, Ethiopia declared taking no actions that could harm Egyptian interests, and that mechanisms for periodical consulting and planning shall be worked out. This document and the statement on the GA voting on the 1997 Convention indicate that the Ethiopia cannot be accounted as a persistent objector, since the objections are not permanent. Ethiopia reserves its right to unilateral utilization, where reasonable sharing of uses cannot be achieved by downstream riparian states because the willingness to negotiate is absent (Oswald, 1999: 296).

[54] In this context, King Menelik II of Ethiopia assured Great Britain that it would obtain any construction projects, which would stop the flow across the Blue Nile, Lake Tsana or Sobat (Oswald, 1999: 276).

4.2.5 The 1959 Nile Waters Agreement between Egypt and Sudan

Ethiopia declared before (1957) the signature of the contract in 1959 that it would not feel bound to the agreement in any way. Egypt's position on acquired rights was contested in 1977, and Ethiopia emphasized, here, again the statement explicitly of not feeling bound to the contract. If the treaty would be acknowledged - the chain of reasoning of certain treaty articles, then it would undermine its own legal position. According to Ethiopia, the contract has been *ab initio* inequitable and referred to art. 4 para. 2 UNWCC, stating that the long-term use could have significant affect on the equitable and reasonable use for upstream states; and thus the rights of other parties have been ignored. The bilateral contract between Egypt and Sudan could be understood – by using a very rigid interpretation of the wording of art. 1 – 4 – that it admits to presume Egypt and Sudan vindicate the point of view of absolute territorial integrity. A different perception derives by looking at art. 5 of the agreement. Oswald (1999) calls it the "negotiation article" towards the other Nile riparian countries. His chain of reasoning takes into account that art. 5 para. 1 mentions the necessity of a unified view as a basis for negotiation talks with the other Nile states by explicitly referring to "outside of the borders" (not quoted). Art. 5 para 2 states that if shares of water are claimed by other states than the contracting parties and their decision results in an acceptance, then the amounts have to be taken equally from Egypt and Sudan. This indicates that only the two countries shall be bound by the contract. No binding effect on the other upstream states is created. Oswald states that this argument is very often ignored. In the end, it comes down to the necessary unified view of Egypt and Sudan in practice.

To sum up, the contract of 1959 is still valid but does not bind Ethiopia as a contracting party.

4.2.6 Negotiation strategies

Ethiopia showed that it is willing to share the Nile water, arguing from its basic and non-party position to the existing bilateral agreements by replacing the present position. Further Ethiopia sees in a broad legal and institutional regime, the possibility to have an 'equitable' and 'judicious' use of the water, "that traverses their respective territory" (Arsano in Tvedt, 2010: 174). Regarding pending arrangements on water management and water use the country reserves its sovereign rights and sees itself loyal firstly to use the water within its jurisdiction. Ethiopia takes the view of absolute territorial sovereignty over its water resources. Arsano states that it is also a reaction to the 1959 agreement (ibid.).

Negotiations and (hydro)politics are strongly connected. The hydrologic projects have little to no significant impact on the downstream countries but the political impact and messages to Egypt and Sudan is bigger, showing a possible shift from monopole status and the current balance of power. What is more, it clearly communicates that Ethiopia may not wait for hydraulic infrastructure development until multilateral negotiations and agreements are signed and enforced (Cascão, 2009: 256). Despite the current strong exchange of words, Ethiopia and Egypt signed a cooperation agreement[55] on various

[55] areas of agriculture, trade, health, transit live animals and beef meat, economic development, information science, technology, education, air service, media and communications among others.

fields in March 2010, which underlines the trend of both countries to work closer (Suleyman, 2010).

4.2.7 The Helsinki Rules 1966

Due to the lack of data on Tanzania's position on the Helsinki Rules 1966, the author cannot draw any conclusions.

4.2.8 The UNWCC 1997

Upstream states behaviour is normally determined by the principle of absolute territorial sovereignty having low to no environmental standards on the use of the transboundary watercourse. If defection as a second choice cannot be achieved it aims at a comprising outcome (Schroeder-Wildberg, 2002: 31). Ethiopia abstained from voting next to Rwanda and Egypt on the final Convention text but voted in favour for the draft (Schroeder-Wildberg: 33). When voting for art. 5 and 7 in the Working Group, Ethiopia abstained. Together with other states, Ethiopia was strongly against the proposed article and submitted a proposal to art. 7, whose changes were incorporated. Schroeder-Wildberg states that otherwise the agreement would have been "impossible" (ibid: 49), and that Ethiopia and Turkey were the only blocking states, having most arguments (ibid: 50). Both states a. o. successfully prevented the adoption in the first meeting in 1996. By doing so they could finish the upstream utilization project, which would have been otherwise uncertain (ibid: 53).

4.2.9 The Nile Basin Initiative view

The different perceptions on water utilization are affected by national interest, leading to a tense climate with Egypt and Sudan. The Eastern Nile basin (Eritrea, Ethiopia, Sudan, Egypt) hydropolitics are hydra headed, which in turn struggle with the present stage and the alternative to it, on the basis of mutual cooperation and interest (Arsano in Tvedt, 2010: 176). No adequate water management and utilization caused serious problems, which are best dealt with at regional level such as excessive land erosion and loss (Ethiopia), flood and silt accumulation (Sudan) and high water loss by evaporation (Egypt).

Ethiopia's view on the legal framework and an institutional regime for the Nile utilization was that a sustainable basis for equitable and reasonable utilization would be made. Herewith defined rights and obligations would abolish the obstacles of cooperative investment and development.

4.2 Egypt

4.3.1 General information

[56] The majority of the Egyptian territory is desert land. The fertile Nile valley and delta represent about 3 per cent of the country's territory; it is the highest and most intensively cultivated area and is home to 95 per cent of Egypt's inhabitants. The climate is characterised by dry hot summers and mild winters. The southern part of Upper Egypt has tropical climate, whereby the majority of the country is dry and subtropical. The midlands are very hot, while the area along the Mediterranean coastline

[56] BBC Weather, 2010; AQUASTAT.

is cooled by the Northern winds. The mean annual rainfall accounts to nearly 0 in the south, 25 - 50 mm in the area of Cairo – the capital – and 100 – 200 mm on the Mediterranean coast on average per year. Rainfall remains very low, irregular and unpredictable. Temperatures in Cairo vary from 14°C (January) to 28°C (July), with humidity of 68 per cent (February) and 77 per cent (December). The springtime is affected by hot, dry sandstorms from the Western Desert. The summer temperatures are very high reaching 38°C up to 43° C, and extremely high in the desert (S, W) region with up to 49°C.

The main water resource for Egypt is the River Nile, with a flow of 55.5 km^3 p.a. (according to the 1959 agreement). Egypt's freshwater stems to 98 per cent from the Nile, which meets about 95 per cent of the water requirements (Eleman, 2010: 219). The four river basins in Egypt are the Northern Interior Basin (520,881 km^2), the Nile Basin[57] (326,751 km2), and Mediterranean Coast basin (65,568 km^2) as well as the Northeast Coast Basin (88,250 km2). The renewable surface water resources are estimated 56 km^3 and 1.3 km^3 pa. of groundwater. Non-renewable water resources are also available, the so-called Nubian Sandstone aquifer system has a storage capacity of 190,587 km^3 of freshwater[58] (depending on the area and particular sources). The drainage water in the Nile Delta is estimated at 14 km^3 per year, whereas the drainage water of Upper Egypt contribute to 4 km^3/yr, serving the irrigation canals and the Nile. The total production of freshwater by desalination plants is negligible, as it accounts to

[57] 87% of Egypt's total groundwater abstraction is taken from the Nile basin aquifer (Eleman, 2010: 221).

[58] The aquifer is shared by Chad, Libya, Sudan and Egypt. The storage volume accounts only for Egypt: Nubian Sandstone Aquifer System 154,720km3; Post Nubian Aquifer 35,867 km3 (Alke in Scheumann & Herrfahrdt-Pähle).

only 0.1 per cent of the total freshwater resources (CAPMAS, 2010, *Egypt in Figures 2010*, Cairo: C.A.P.M.A.S. printing shop). The inhabitants are estimated to be 73.4 million (2004), out of which 58 per cent live in rural and 42 per cent in urban areas. The population density is on average 73 people per km^2, in the Nile Valley and Delta region the density is 1,165 inhabitants/ km^2.

Access to improved drinking water sources is about 96 per cent in rural and 99 per cent in urban areas. The figure in total for connection to sanitation for rural areas is 24.3 per cent versus 82.5 percent in 2006 for urban areas (MED EUWI 2, 2009). A major challenge is the increasing population size, especially in the urban areas. In this context, the Egyptian government created a policy in 1987, which aims at relieving the major cities and urban centres from this heavy population density, "…and created new towns such as by the Nubia canal in the north." (Al Qasay in BBC, February 2005). Those cities[59] in the desert create new problems, such as the water capacity needed for supply in all varieties of human need. The present water demand is below 1,000 m^3 p.c.p.y. and could drop to 500 m^3 p.c.p.y. until 2025, which means dropping to the level of water scarcity. The Egyptian government launched the National Water Resources Plan in 2005 in cooperation with the IWRM approach.

4.3.2 Economy and agriculture

The GDP was estimated to 188 billion USD in 2009, with a growth rate of 4.7 per cent. The agricultural sector supplies 40 per cent of Egypt's labour force and consumes 85 per cent of the water resources available. The main agricultural products are cotton,

[59] North Sinai Development Project: 2,510 km2 and the Toshka South Egypt Development Project: 2,185 km2. Recovery of arable land through irrigation and area development accommodating 3 million people, including a transportation system. The demand for locals as well as export is met by livestock, poultry and fish breeding projects. The tourist sector is also integrated in this concept. (Elemam, 2010: 220).

rice, citrus fruits, wheat and corn, just to mention a few. Textiles and chemicals as well as petro-chemicals, iron and steel production and the production of military equipment are some of the main industry products. Imported goods represented 50.3 billion USD, while export represented 25.2 billion USD in 2009, which results in a trade imbalance. Major export markets are the EU, U.S. and Middle East, with petroleum, clothing and textiles, cotton, fruits and vegetables leading the way. The EU, U.S. and China export mainly machinery and transport equipment, petroleum products, food and beverages as well as paper and wood products to name a few.

4.3.3 Foreign Policy

President Sadat's „groundbreaking trip" to Israel in 1977 and the Egypt-Israel Peace Treaty of 1979 were a. o. hallmarks in the Middle East peace process, but also lead to isolation by the other Arab states and the Arab League until 1989. The promotion of the peace process was often personally intervened by President Mubarak. Several summits were held in Egypt in 1996, 2000 and 2003. An agreement between Egypt and Israel was reached over control of the border territory and the prevention of smuggling weapons. The Egyptian foreign policy is determined by 1) Egypt's position in the Arab-Islamic world and 2) strategic partnership with the United States. The Iranian development as well as politics in the region is critically observed. The focus is set on the Middle East Peace process and the situation in Sudan, especially in securing the water demand by the Nile river. In this context, the development of the Nile basin states is specifically paid attention to. Egypt tried to cooperate with the African Union as well as the Security Council of the United Nations in the Darfur crisis, seeking a solution, which included the dispatch of military monitors.

Egypt's diplomacy plays an important role in the United Nations as well as the emerging countries and in cooperation with Europe.

Egypt's power has been a determining factor in regional hydro-political relations. The country's overarching goal is the protection of its acquired rights. The reclaiming land projects as an answer to growing population and over old lands in the Nile valley and delta are extremely controversial within the Nile region. The three projects[60] include a significant increase in water consumption by the Nile river. Those projects reflect the Egyptian point of view of manifesting its historic rights to the Nile and preventing other riparian from using it (Cascão, 2009: 249). In literature it is stated that the message sent by Egypt is understood in the following a) the existing allocation is non-negotiable and a decrease by upstream states is unacceptable, b) by making statements about having a strong willed to unilaterally establish projects so as to increase the Nile water consumption and c) manifest an amount higher than the present "agreement amount" by legal means, setting rights to additional water allocation (Cascão, 2009: 249). The relationship with the upstream state Ethiopia is troubled. The development of Ethiopia's water resources and its dependence on donors was often successfully intervened by Egypt, preventing the securing of international funding (Shapland, 1997: 99)[61]. Egypt's possibility of maintaining its status quo and regime is owed to its strong "material,

[60] 1. West Delta Irrigation Project, 2. the North Sinai Agriculture Development Project, and 3. Toshka Development Project, all of which aim to reclaim thousands of hectares of land (MWRI, 2005). It is aimed at reclaiming 1.8 million feddan before 2017 (870,000 in the Sinai region, and 997,000 in the south-western desert) before 2017 (MWRI, 2005) (MWRI 2005 in Cascão, 2009, p. 249).

[61] Verbatim in Shapland: "...it's (Egypts) opposition to Ethiopian applications for funds would probably be successful.". The real practice has to be questioned as stated by Cascão, since there is no evidence of proof or exact examples stated.

bargaining and ideational power"(Cascão, 2009: 264). The hydro-hegemonic status enables Egypt opt out for what serves its national interest best (ibid: 248).

4.3.4 The 1929 British-Egyptian Agreement

Egypt's starting point is the 1929 exchange of notes, which constitutes a localized contract, implying state succession (in this context, territorial regime) and binding effect developed out of agreements on the newly independent countries - in this case Tanzania (also Uganda, Kenya) through customary law.

4.3.5 The 1959 Egyptian – Sudanese Agreement

Beginning with the statements above (in the sections about Tanzania and Ethiopia), some remarks will be made as to whether the contract indicates equitable utilization and the above-mentioned absolute territorial integrity.

Some authors argue that the principle of equitable utilization is the focal point of the 1959 treaty, whereas others consider the principle possible, since the wording "… present acquired rights" (art. 1) indicate future proportioning of the existing rights in accordance with the principle (Bruhac in Oswald, 1999: 290). Other state it as one point of the contract and reflecting the partial attempt and recognition of the 1966 Helsinki Rules if not necessarily on the whole basin (Jacobs in Oswald, 1999: 290). The acceptance of claims of other states reflects Egypt's awareness of not being the primary owner, emphasized also by Sudan's position in the contract. The exception of the other riparian countries while negotiating or as parties is criticized in literature. This argument is presented through the content of art. 3 UNWCC. In this context, it is

desired to conclude a specific agreement, if necessary on sub-basin level. As a result, it can be said that the 1959 agreement is in compliance with valid international customary law, considering the need of interpretation of existing treaties through legal review.

4.3.6 Negotiation strategy

It is stated in the literature that Egypt in particular has to open up for cooperative planning to avoid the present mismanagement of water by long-distance transfer of water outside the basin and losing precious amounts of it through high evaporation rates. In the literature it is assumed that Egypt tries to isolate Ethiopia by an active diplomatic initiative within the basin. The argument is underlined by stating the exclusion during the negotiation process as well as the lack of consulting the only other sovereign state in the basin at that time (1959). By founding "ad-hoc" initiative e.g. Hydromet and Undugu it aims at maintaining the "imperial, unequal and exclusionist agreement" (Arsano in Tvedt, 2010: 175).

Egypt's arguments towards Ethiopia are aimed at the hydrologic and climatic preconditions and dependencies of the existing water resources, stating its full dependence on the Nile waters, whereby Ethiopia could make use of other water resources including precipitation. Furthermore, it is argued that due to no alternative water resources, the upstream states shall not consume more than at present. A new Egyptian approach is that if water is reallocated, then alternative additional resources have to be made available for Egypt. The upstream states shall be prevented from using the Nile waters. It seems that Egypts "best alternative to negotiated agreement is to cling to the absolute riparian doctrine supported by an implicit threat of force reinforced by diplomatic means" (Arsano in Tvedt, 2010: 175). Foreign diplomatic and investment

support made Egypt stronger in comparison to Ethiopia, yet the latter country is the source for most of the Nile water.

4.3.7 The Helsinki Rules 1966

Egypt refused the theoretical approach of the Helsinki Rules' drainage basin to the greatest extent possible, despite that it took an implicit step towards the recognition of the principle of equitable utilization in its 1959 Nile Waters Agreement, as stated above.

Egyptian politicians often argue publicly about a non-negotiable share of 55.5 billion cubic meters, which does not correspond to the contractual content of acquired rights of 48 billion cubic meters, art. 1 sub-para. 1 of the 1959 Agreement, which is emphasized by the definition of the term net benefit (art. 2 para. 3) as well as the expression "…adding these shares to their acquired rights" (art. 2 para. 4 no. 3). The acquired rights in the 1929 agreement refer to the same amounts. Fixed amounts are contradictory to the treaty, as it explicitly states that profit gained by surpluses have to be shared equally (art. 2 para. 4 no. 4). Egypt *de facto* benefited the most from the surplus profits, because Sudan was not able to utilize the surplus profits for itself. By no means does Egyptian behaviour establish customary law nor is it justified by contract (Oswald, 1999: 50).

The principle of equitable utilization is *ius dispositivum* and does not prevail over earlier treaties. Article 3 I UNWCC explicitly states the continuity of existing treaties and appreciates the closing of special agreements – bilateral included. Egypt obstinately

insisted on the continuity of previous special rights (Oswald, 1999: 260). Egypt suggested that art. 3 shall contain that acquired rights remain unaffected, and in this context, the downstream country could not defend its position, and thus, voted against it despite that para. 3 now contains the possibility of significant discrepancy (Caflish in Oswald, 1999: 260).

4.3.8 The UNWCC 1997

Downstream states tend to choose the principle of absolute territorial integrity, with a high standard on environmental condition for inflowing water. The second best option is to compromise, and the least favoured and last choice: defection (Schroeder-Wildberg, 2002: 31). Egypt, as the downstream state, abstained from voting during the adaption in the General Assembly, in the Working Group as well as the voting on the art. 5 and 7. Schroeder-Wildberg points out that non-binding force for voting on the articles and the behaviour of Egypt – abstaining – confirms its position and that political, economic and historical factors have a major impact (Schroeder-Wildberg, 2002: 35). The other downstream states[62] interests were not met, but the majority voted in favour of art. 5 and 7 UNWCC. Egypt's position allowed this voting and implicitly insisting on its interests (ibid).

[62] Other main downstream states: Netherlands, Portugal, Hungary, Syria and Iraq, Bangladesh, Mexico and Greece. All of the aforementioned states voted in favour for art. 5 and 7, only Greece abstained (Schroeder-Wildberg, 2002: 34).

5. Discussion

5.1 Cooperative Framework Agreement of the Nile Basin Initiative

The question is, to what extend should the agreement, which was made under British rule, be binding nowadays? The same applies to the 1959 agreement between Egypt-Sudan, which turns the two states into decisive “leaders” about sharing the Nile waters. Are the successors to the Nile agreements bound as non-contracting sovereign basin states (Tvedt, 2010: 10)?

The UNDP technically and financially supported draft of the Nile Basin Cooperative Framework in 1997. Three senior experts of each basin state prepared the draft. In August 2000 the draft was presented to the NILE-COM, comprised by 19 points agreed upon and 17 not agreed upon points. A transnational committee made a subsequent presentation to the Negotiation Committee with recommendations on the 17 opened points. The negotiation on a framework has been going on since 1999 with all Nile riparian countries. Upstream states wanted all previous agreements disregarded, of which they were not party to, in the new framework. And as to be expected, the down stream states insisted those agreements to be included. The Negotiations Committee chaired by George Khodra in the seven meetings. Legal advise was given by McCaffrey, who also was a rapporteur to the 1997 UNWCC[63]. The report of the Negotiations Committee was presented to the NILE-COM in March 2006 (Statement Mwandosya, 15.05.2010).

[63] Prof. Stephen McCaffrey was one of the Special Rapporteurs (1985 – 1991) of the Commission drafting the articles which were the basis of the 1997 UNWCC

Ethiopia's doubts result from a lack of progress in achieving cooperation at sub-basin and Nile basin level, but it "remains committed" (Arsano in Tvedt, 2010: 179). Ngowi states that the recognition of the principles seem to be victories for the upstream states, the core was and remains the quantitative amounts each riparian state is entitled to use (Nogwi in Tvedt, 2010: 62).

The Cooperative Framework Agreement consists of six parts:

- Preamble comprised of Articles 1 and 2
- Part I: General Principles-Article 3
- Part II: Rights and Obligations- Article 4 - 14
- Part III: Institutional Structure-Article 15 – Article 31
- Part IV: Subsidiary Institutions- Article 32 and Article 33
- Part V: Miscellaneous Provisions- Article 34 and Article 35
- Part VI: Final Clauses- Article 36 – Article 45

The status of existing agreements and the procedure on planned measures "were the real outstanding issue" (Tamrat in Mekonnen, 2010: 428). The negotiation process is describes as "sluggish" and peaked in introducing the woolly term of water scarcity (art. 14). Mekonnen describes it as the attempt of by-passing the status quo on existing agreements by a constructive ambiguous "non-legal, destructively elastic, and indeterminate" term (ibid).

Draft Article 14 – water security

> Having due regard to the provisions of Article 4 and 5, Nile Basin States recognize the vital importance of water security to each of them. The states also recognize that the cooperation management and development of waters of the Nile River System will facilitate achievement of water security and other benefits. Nile Basin States therefore agree, in a spirit of cooperation'

(a) to work together to ensure that all states achieve and sustain water security;

(b) not to significantly affect the water security of any other Nile Basin State.

The alternative sub-article proposed by Egypt and Sudan to 14 lit. b) would impose the duty "not to adversely affect the water security and current uses and rights of any other Nile Basin State" (Mekonnen, 2010: supra 47, 428). In the text all Basin states commonly agreed upon including proposed amendments and taking out art. 14 lit. b) leaving it for future decision by the Nile River Basin Commission (Mekonnen, 2010: 429).

At the 2009 Kinshasa NILE-COM meeting the seven countries of Burundi, D.R Congo, Ethiopia, Kenya, Rwanda, Tanzania and Uganda adopted the Draft Cooperative Framework Agreement and annex the pending art. 14 lit. b) (Statement Mwandosya, 15.05.2010). The discussion on art. 14 shows, that Egypt insisted on its position by introducing an alternative sub-article, which was inacceptable to the upstream states. The interpretation of the term "water security" has to be accomplished by the individual States according to Tamrat (ibid). Tamrat disregards the definition of the term "water security in art. 2 lit. f). The scope of the term is therefore partially defined. Further the article has to be considered in all its beings; here art. 4 and 5 have to be obeyed to. Mekonnen merciless balances accounts with the concept chosen, "… no factual and legal basis (…) resolve an essentially legal problem by adopting an indeterminate non-legal solution" (Mekonnen, 2010: 431).

Despite his generous objections Governments officials statements on the CFA are optimistic and show the overall positive development of cooperation between Basin

countries and achievements possible in socio-economic terms[64] (NBI News, 2010). The Tanzanian Vice- President Ali Mohamed Shein expressed the headway as followed (Alhamra Weekly, No. 994, April 2010):

"Ten years ago there was an atmosphere of mistrust, suspicion and doubt. Today the Nile Basin countries are open to each other and ready to collaborate more closely together. This is an achievement to be cherished, nourished and nurtured all the way."

Next to having a legal foundation of action, the institution, which is also depends on the signing and ratification, is the Nile River Basin Commission itself. The construction of a legal scaffold achieving to solve the power imbalance and recalculation of the Nile waters by and also establishing a River Commission is seen as illusive in literature[65].

5.1.1 CFA Ethiopia

Ethiopia successfully imposed its strategy for working on a framework with legal and institutional approach, which was a *conditio sine qua non* for the countries participation in the Nile Basin Initiative (Amare, Arsano and Tamrat in Cascão, 2009: 256). The convincing of six equatorial Nile riparian’s to vote unanimously in favour for the draft document killed two birds with one stone for Ethiopia. The recognition of the equitable utilisation principle and not considering of fixed amounts in the existing treaties (Cascão, 2009: 256). Cascão states that it was “the first time in the Nile basin hydro

[64] NBI- News: „Agreement on the Nile River Basin Cooperative Framework Opened for Signature by Upstream Countries“. The Tanzanian Minister of Water and Irrigation Prof. Mwandosya sees the Agreement as „not exclusive of any member state. It is indeed inclusive“ and the importance of socio-economic well being of the people in the basin can be achieved through cooperation (NBI-News, 2010).

[65] According to Mekonnen the establishment of the RBC is not for sure since it depends on the signature of all Nile Riparian countries and their ratification. He further states, it’s illusive to assume the Nile RBC could achieve was has not been able since the establishing of the NBI (Mekonnen, 2010: 429).

political history that all upstream riparian's assumed a unified position against downstream riparian's." (ibid). The Water Resource Minister Asfaw Dingamo "strongly believes" that all Nile Basin countries are going to sign and that proper water management would result in "enough for the riparian countries", which was not the case so far (The Citizen, May 2010). Together with the other six basin states it keeps the position of the unacceptability of Egypt and Sudan regarding position insisting on the current uses and rights in relation to the existing 1959 Agreement, respectively 1929 Agreement.

5.1.2 CFA Tanzania

The Member of Parliament and Minister of Water and Irrigation Mark Mwandosya signed the Agreement on behalf of Tanzania on the 14th May this year. Reasons for Tanzania for signing were the establishing of permanent Commission strengthens the already existing cooperation, the status of such in the international community and the "wise use", which would be also fostered. The dispute resolution mechanism provided by the Commission in case of issues arising on the use of water. The urge of progressing after then years of negotiating on an agreement, acceptable to all riparian's, and the disappointing outcome of the Sharm El Sheikh meeting in April 2010[66]. Further does Tanzania want to make us of the international relation position, which it has established towards Egypt and Sudan by dialogue for the "One Nile philosophy". Towards the two dissenting countries it is expressed that it respects their position out of sovereignty and recognizes the sensitivity of water security to both of them. Yet also states that the CFA upholds all tools for water security to all basin States as well as the

[66] In the extraordinary NILE-COM Egypt and Sudan suggested establishing a Nile River Basin Commission without the Cooperative Framework Agreement (ibid).

central necessity of water access for all of the nine countries. For this reason it sees the Egyptian and Sudanese position, current use and rights, as inacceptable[67].

5.1.3 CFA Egypt

In the extra-ordinary NILE-COM meeting held in Sharm-el-Sheikh on 13th April 2010 the Egyptian Minister of Water Resources and Irrigation stated Egypt's objections and that it „will not sign any deal before its conditions are met,". This comprises 1.) clear acknowledgement of the 1959 Agreements historic share of the Nile water for Egypt and Sudan, 2.) early notification mechanism of upstream projects and constructions and 3.) decisions have to be reached on „consens formula[68]" by unanimous vote, not through majority (Omar, El-Din cited in Al Ahram No. 994, April 2010). The consensus formula is of importance, if the un-sourced statement is found be true, that the upstream riparian nations tend to concur when Egypt objects.

Is Egypt's opposing opinion based on solid ground? Does the agreement lack of acknowledging the historic share, the early notification mechanism and on consent? In the following the arguments shall be analyzed, which international law principles would have to be included in the CFA to overcome Egypt's objections.

[67] The Tanzanian position is taken of the official statement of the Water and Irrigation Minister Prof. Mwandosya during the press conference on the Nile Cooperation on the 17th May this year.
[68] Assistant Foreign Minister for African Affairs Mona Omar was cited in Al Ahram (No. 994, April 2010) that Egypt targets on a "consensus formula".

5.1.3.1 Acknowledging the historic rights

As shown above the negotiation parties agreed to consider „not to adversely affect the water security and current uses and rights of any other Nile Basin State" as proposed by Egypt. The to be established River Basin Commission will have to decide on the future of Art. 14 lit. b) as amended and accepted.

a) To begin with the referred term historic rights would have to be explained. The claim refers to the 1959 Agreement. Who the agreement shall be binding upon has to be clarified.

   i. The validity of the 1959 Agreement among the contracting parties Egypt and Sudan is given. It could be assumed that the agreement binds all the Nile upstream states according to preamble "full utilization of its waters" and Art. 1 para. 1 "amounts of the Nile waters used" and "acquired rights" and the sharing of the net benefitted water, Art. 2 para. 3.

      i.i. The legal effect of contract is only binding to the contracting parties Egypt and Sudan. Duties for third parties, the other upstream states are not created[69]. Upstream obligations would need explicit acceptance in writing and the willingness of Sudan and Egypt, that duties are created. The latter has to be interpreted, since the explicit written acceptance does not exist an interpretation of the agreement is not necessary[70]. The upstream states are not bound to the contract through obligations.

[69] International customary law principle "pacta tertiis nec nocent nec prosunt" reflected in Art. 34 VCLT.

[70] Art. 35 VCLT.

i.ii. The agreement could have a binding effect on the upstream states by provision in favor of the upstream states, if Egypt and Sudan intended to do so and the other states agreed, here the acceptance can be assumed since it is a right. Some authors assume here the application of territorial integrity, which is not going to be discussed here in depth since the usage of water flowing within a territory is legitimate and does not harm the upstream states. Possible arguments could be the preambles wording using the full Nile waters is a mere notice of intention and does not have a binding effect. The rights and duties are defined in the agreement itself. Further argument against the territorial use could be Art. 2. Here Egypt does not claim the amount Sudan is not making use of, rather takes the advantage of unused amounts.

Artikel 5 could argument against the integrity approach and towards rights of riparian's states. According to art. 5 the necessity of holding negotiations with the riparian countries on water of the Nile could arise. If so the Technical Committee of the two states would have to be work out a unified view, being the base for negotiations. Egypt and Sudan would have to "reach one unified view" on possible claim for shares of the Nile waters. If an amount is allotted is would have to be equally drawn off the shares of Egypt and Sudan.

It has to be concluded that the contractual obligations are binding on Egypt and Sudan, therefore the 1959 agreement is undeniable bilateral.

Possible adaptations of the 1959 Agreement would have to be made in the light of new international customary law and contractual gaps closed by negotiating (McCaffrey in Oswald, 1999: 287 sub 327).

ii. The term “historic rights” has to be clarified. Article 1 para. 1 of 1959 Agreement talks about acquired rights of Egypt being 48 billion cubic meters as measured in Aswan, Art. 2 para. 3. The net benefit is added to the acquired rights amounting to 55.5 billion m3, Art. 2[71]. Official Egyptian information states that “Egypt’s natural and historical rights to waters of the Nile were protected under the agreement (1929)“ and refers further to the 1959 agreement of protecting its right to 48 billion cubic meters (Egypt State Information Service, 2010). The statement of the 55.5 billion cubic meters as being non-negotiable interpreted in the light of international customary law has to be understood as negotiating position (Oswald, 1999: 287, sub 326). Abdel Rahman Shalaby (Ministry of Irrigation and Public Works) stated in 1995 that each state should have an equitable share in the future, but under consideration of Egypt’s historical rights (Oswald, 1999: 287 sub. 327). This is in-line with

[71] Art. 2 of the 1959 Agreement (Oswald, 1999: annex 2): The average natural river yield at Aswan is estimated 84 billion cubic meters p.a. The amount is reduced by the annual average storage loss, estimated to 10 BCM, of Sudd el Aali Reservoir and the acquired rights, 48 and 4 billion cubic meters. The remaining net benefit of 22 BCM is divided between Egypt and Sudan in ratio 7 ½: 14 ½. Surpluses over 84 BCM are equally shared between Egypt and Sudan. The explicit statement of possible revision on the net benefit is found in para. 5, para. 4 could be interpreted that the ratio is valid as a long as the net benefit amounts to 84 BCM.

international water law. Supported by Art. 6 para. 1 lit. e) UNWCC whereby existing and potential uses are factors relevant determining equitable and reasonable utilization.

It can be concluded that the historic rights according to the 1959 Agreement refers to the amount stated in the 1929 Agreement concluded between Great Britain and Egypt. Further the interpretation of art. 5, 1959 Agreements should be done in the light of international customary law and considering official Egyptian statements. Hereafter the shares are subject to equitable utilization as well as being one of the factors for its determination.

5.1.3.2 Early notification mechanism of upstream projects and constructions

The early notification of projects and constructions in upstream countries could be served by art. 11, 12 of the UNWCC.

According to art. 11 riparian countries shall exchange information and consult each other and, if necessary, negotiate on the possible effects of planned measures on the condition of the river. According to art. 12 the riparian state implementing of permitting an implementation of a planned measure, which may have a significant adverse effect on other riparian States should provide those States with timely notification thereof. The notification should be comprised of available information and technical data, results of

any environmental impact assessment (EIA). Enabling the notified State to evaluate possible effects of the measures planned.

Assuming the CFA comprises articles a) on the exchange of information on b) planned measures that may have significant adverse effect including the c) available information and technical data as well as EIA results, the requirements would be partially met. The use of "planned measures" could be interpreted comprising projects and constructions.

The term "early" would have to be necessary to fully comply with the requirements. The application of art. 14 UNWCC could serve the purpose. Therefore the state notifying allows the informed state a period of six months within the possible effects of the planned measure can be studied and evaluated as well as the findings communicated to the notifying state. Assuming the CFA would consider a period of six months within one of the articles the purpose could be served, if Egypt subsumes the period of six months being in line with the term "early", or the term "early" itself is included in articles regarding notification of planned measures with significant impact.

As a result the demanded criteria of an early notification would be fulfilled.

5.1.3.3 Consensus principle

The consensus formula, decisions have to be reached by unanimous vote, not through majority. The consensus requirements could be served by the international law principles of consensus codified in art. 34 VCLT.

Therefore no binding effect is imposed unless third parties consent is given, art. 34 VCLT. Further the principles derive from practice and application in international law (Macdonald and Johnston, 1986: 872). But the requirement for a consensus by unanimity is contradicting. Consensus is an "element of tolerance", whereby it expresses agreeing with the whole, but not with every detail. Further the process of determining, if a consensus is achieved needs a chairman to make a decision on that. This could be the position of the – also with the framework - to be established River Basin Commission. Consensus "serves to distinguish from unanimity". The latter can remain undecided, if the CFA would be comprised of an article on decision-making on unanimous consensus the preconditions would be met. If the CFA would lack of the wording "unanimity" possible amendments on the concerned article could be made to the institution being responsible for amendments on contractual issues as far as existent.

As a result it can be said, if the CFA as one possible option taking the VCLT, UNWCC and international customary as a basis it could be possible that the requested precondition of Egypt are met.

It has to be questioned, if states „possibly deliberately" misinterpret terms and do not obey to the principle of good faith[72], which is assumed by Howell in the negotiations on art. 4 para. 3 and 4 of the 1959 Agreement (Howell and Allan, 1994: 98 – 106).

[72] Judge Bedjaoui declared in ICJ advisory opinion that "good faith is a fundamental principle of international law, without which all international law would collapse" (*Legality of the Threat or Use of*

6. Conclusions - Recommendation

6. 1 Change in International Water Law

The international law developed from the principle of equitable utilization and the subordination of no harm, being one of several important factors, which are (Art. V Helsinki Rules[73]) have to be considered for a balance between both principles by the factors of art. 6 UNWCC, which determine the threshold and priority for certain uses and uses of water benefits. Even moving into a direction of giving priority to the environment and therefore the no harm principle.

6.1.1 Change of the Ethiopian legal position

Ethiopia's position on equitable utilization can already be found in the *Fetha Negast*, the Justice of Kings, which goes back as far as 1444, where shared rights among riparian's are recognized as well as the protection of a river's environment. The principle is also reflected in unwritten customary law, which affirms, that downstream riparian's, who depend on the water, cannot be deprived from access to water, by the upstream riparian or those, who control the source (Arsano in Tvedt, 2010: 165). Ethiopia voted in favor of adopting the UNWCC draft in 1997, because it contains the indispensable norms on dealing with international waterbodies on the basis of equitable

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*Nuclear Weapons, Advisory Opinion, **1.** C.J. Reports 1996*, p. 226: para. 102)

[73] The quantitative water distribution was in focus of international law in the 1950s/ 1960s. The Helsinki Rules are reflecting the prevailing principle at that time and that was equitable utilization (Oswald, 1999: 290, supra 340.

utilization[74]. The uninterrupted and expressed doubts on Egypt were addressed in 1997[75], but also the hopes, that this Convention provides a fundament for negotiations in good faith and just allocation of water resources (UNGA, 4th April 1997). It can be said, that Ethiopia has been consequently following the principle of equitable utilization for upstream and downstream countries of a waterbody and also recognized the principle of no harm at a very early stage in it's countries history. Ethiopia holds firm to principle through out the CFA, until now.

6.1.2 Change of the Tanzanian legal position

Tanzania voted against art. 5 and 7, abstained on the Working Group voting as well as the voting on the whole Convention in the General Assembly (GA) out of its believe, that no balance of interest is achieved on the principles of "equitable utilization" and "no harm". The argument to art. 3 para. 2 (states can but do not have to harmonize existing agreements with the Convention) reflects Tanzania's position, that contractual existing rights should not deprive other riparian's on the use of water (UNGA, 4th April 1997). The statement could also be emphasized, that Tanzania supports the idea, that law is a constant process of progress and that it has to be understood and interpreted out of this perspective. Nevertheless Tanzania did not support the article, which enables natural and juridical persons of other riparian states to claim for monetary and no-monetary relief in case they are considerably harmed by activities on Tanzanian territory. Unfortunately the reasons, why Tanzania voted against article 32 UNWCC

[74] The principles of equitable utilization is fully recognized in it's very own article 5 and in the article 7 of causing not significant harm while using the waters, as well as in the article 6, which mediates between the two principles.

[75] Ethiopia's statement was literally, that „No State could claim an exclusive right on the basis of outmoded principles established unilaterally for its own benefit" (UNGA, 4th April 1997).

cannot be traced. Tanzania is, just as Ethiopia, supporting the CFA and the incorporated principles of equitable utilization and not causing significant harm to other riparian states.

6.1.3 Change of the Egyptian legal position

Egypt changed its policy and diplomatic strategy since 1990s; military strategies[76] are no longer an option, not viable and justifiable in the question of securing Egypt's water supply. Egypt turned to cooperation and „goodwill" among the Nile basin countries by supporting and initiating concrete measures and economic assistance (Tenywa, 2010). It has followed this up with concrete measures and in a number of cases Egypt has offered economic assistance. Kliot views a change in Egypt's international law perspective towards the Nile from 1929 until the 1952 abandoning the doctrine of absolute territorial integrity tending to a more restrictive view to the Nile (Kliot, 1994: 84). Egypt avows for the principle of equitable utilisation and no- harm but that does not testify that it agrees of the 1929 agreement to be expired. Moreover Egypt considers his historical rights as conform with art. 5 and 7 UNWCC. Egypt concedes privilege to the no harm rule on the 1997 UNWCC UNGA voting and has reservations towards the equality of both principles (UNGA, 4th April 1997). The explicit official statement of Egyptian towards the international law, which is incorporated in the UNWCC expressed the long-term modus operandi of Egypt:

> In that regard, the new provisions which departed from international standards and with respect to which his delegation had reservations could

[76] In the 1970s/ 1980s, Egypt intended of using military actions if anyone would have considered interfering Egypt's use on the Nile (Tenywa, 2010).

> not be used against the Arab Republic of Egypt in the future, even if other States adopted them (ibid).

The abstention from signing the CFA shows the reluctance to compromise and move single step towards the other riparian's and a realistic implementation of the principles of equitable utilization, which was mentioned in political statements and indicated in the 1959 Agreement. The principle of equitable utilization is recognized, but not realized in foreign policy.

6.2 The assumption of theory of constructivism

Norms can support the construction of shared identities and collective definitions of interests by framing processes that encourage common understanding (Brunnée and Toope, 2002: 145). By interaction states, as the Nile basin states, notice how the others see them. This self-others identity fostered by cooperation changes the states beliefs about themselves and this new, collective identity can be incorporated to national and foreign politics (Wendt in Brunnée and Toop, 2002: 145 supra 252), provided the state is willing to do so. The Nile water bonds all riparian countries and with the on-going technical, environmental and economic cooperation the interactions and interdependencies increases, which shapes and strengthens the collective identity. The influence of the Helsinki Rules on the UNWCC is without doubt, and integrated in the Corporative Framework Agreement as shown above. The Institutions, which were responsible for the two soft law instruments are the International Law Association and the United Nations. The assumption, that soft law is an effective instrument in the Nile Basin region is proved to be correct, because the diverse informal progressions in the

basin confirm, that norms can generate attention albeit not formally binding (Brunnée and Toope, 2003: 109). Law can only fulfil its constructive role, when the specific, internal values of what is legitimate, are conform with practice and commonly shared understandings of the Nile basin states (ibid). The cooperation among the basin countries is the precondition that formal rules, incorporated in the CFA, are persuasive to all states, only through that identities and acceptance are created. Next to Nile Basin Initiative and its goals as a common basis, Egypt, Sudan and the other riparian states have to find a consensus on the disputed issues, either renegotiating (as demanded by Egypt) or within the operation of the Nile River Basin Commission, otherwise no binding law can emerge. Norms need to be accepted; forcing it on the resistant "parties" will not encourage loyalty. It can be said, that the second assumption, soft law forms hard law, will prove to be correct and will be affirmed, if law maintains playing the "facilitative role" as it does at present on shaping communication[77].

On the role of the civil society in the whole process and as part of the theory of constructivism the following results were concluded. Oweyegha Afunaduula, who chaired the regional civil society network, the Nile Basin Discourse (NBD)[78], said the NBD helps to conclude the pending CFA by creating awareness on the treaty implication in all the basin states. and states that "Egypt and Sudan should be at the centre of the Nile agreement since they are more at risk,". Uganda's Minister of State

[77] Partly taken from Brunnée and Toope, they analysed the Nile Basin Regime with status 2003 based a.o., on constructivism.

[78] The NBD is a regional network of civil society organizations, which aim is to facilitate and support civil society engagement in Nile Basin Cooperation and development processes. Each of the then basin states have a National Discourse Forums, which currently have a total of 647 civil society member organizations across the region (NBD, 2010).

for Foreign Affairs and Regional Co-operation, Isaac Musumba, referred explicitly to the important role of society and transnational movements, which could help to „overcome the deep-seated notion that Egypt is entitled to the waters of the Nile“ and that informed citizen “back up” politicians (Tenywa in New Vision, 26.06.2010). This underlines exactly the constructivism view on the changes of identity with socialisation, domestic political shifts and transnational social movements (TSM). The latter lobbying governments and lobbying international organisations, and with that pressuring from the inside and outside on to change identity, change what leaders think they can do.

6.3 Scientific analysis, IWRM and International Water Law – one step towards solving the problem

One oft the reasons why Egypt and Sudan are not signing the Corporative Framework Agreement is, that their historic shares on the Nile river have to be obviously recognized. To leave aside the legal aspect, whether or not already incorporated in the CFA, it is doubted that Egypt would not benefit, in comparison to the other Nile basin states, from recalculating the water shares for all Nile riparian countries. (art. 5 1966 Helsinki Rules, art. 6 UNWCC, art. 4 CFA). To quote the Jordanian Water Expert Dureid Mahashneh as saying “Scientific analysis is necessary and one step towards solving the problem” (Al Jazeera Inside Story, 04.06.2010). This quantitative amount can be calculated by referring to the factors of art. 4 para. 2 CFA, which have to be considered, when the share in beneficial uses of water resources is determined. This concept is also one of the pillars of the Integrated Water Resources Management approach as defined by the Global Water Partnership, which reflects the consistency

with international water law principles. The three-dimensional approach, as shown in the graph below, balances out the diverse water needs on different hydrological and governing levels, and aims to achieve the most equitable, efficient and effective water allocation and management. The concept of IWRM is part of the Nile Basin Initiative and also of the Cooperative Framework Agreement.

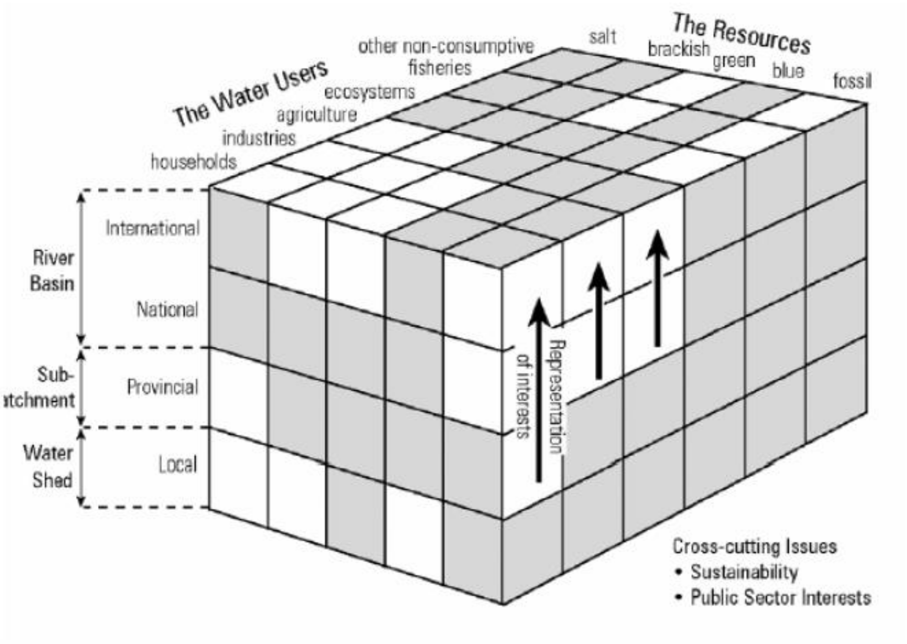


Figure 3: Visualization of the IWRM concept

Source: UNESCO, 2003

The share in beneficial uses of the waters of the Nile River for Egypt would have to reflect on[79]::

1. Natural characters affecting

[79] It is assumed (!), that the factors in the CFA are congruent with the factors in art. V of the Helsinki Rules. Here the Helsinki Rules are chosen over the UNWCC since the watercourse approach is less apparent in contract practice, than the drainage basin approach and is in line with the IWRM objective. Also considered are the basic human rights such as the recently recognized right to have access to safe drinking water and sanitation.

   a. Geography, climate, ecology
   b. Hydrology, hydrography,
2. Contribution of water by each basin state
3. Population depending on the waters
4. Existing and potential uses of the waters
5. Social and Economic needs of the basin state
6. Comparative costs of alternative means of satisfying the economic and social needs
7. Availability of other resources
8. Degree of satisfying the needs without causing substantial injury to other basin state

The rating of each factors is a) compatibility of the various uses, b) are the uses essential to human life, c) are the uses socially and economically valuable, d) are other sources available, e) are other uses existing (by which outweighed or incompatible), f) feasibility to modify competing uses, g) financial contribution for construction works and, h) compensation payments to other states as well as, i) efficiency of the water used.

The improved access to drinking water and sanitation facilities are a human right just as to be free of hunger (art. 11 para. 2 ICESCR) and taken in consideration to aspect b), which results in the comparison of the three countries, importance has Ethiopia, followed by Tanzania and then Egypt. The factors b) indispensable to human life, taken from the list below, is not extensive; several others have to be taken in consideration. In terms of dependencies on the waterbody, reflected by lit. d), Egypt ranges first, since it dependents nearly 100 per cent on Nile water. Ethiopia in contrast does not depend on any waters that stem from outside of its territory in relation to its very own renewable

water resources. Tanzania's dependency ratio is low, only 9.9 per cent, compared to both other riparian states. The renewable water resources (based 1995) emphasize these findings: Egypt had an annual per capita share of 1,189 m m^3, Ethiopia with about 13,000 m^3 and most of the annual capita share accounted for about 27,000 m m^3 (Abu-Zeid, 2008: 37). The climatic and hydrologic conditions of basin state are further very important. The precipitation among the case study countries territory vary tremendously, from arid Egypt, to flood and drought afflicted Ethiopia, and rainy tropical Tanzania. The type of water available for primarily agricultural purposes differ from the actual and potential uses existing. Ethiopia for example, has just tapped 10 per cent of its existing irrigation potential. Whereby Egypt irrigates the agricultural area available solely by Nile waters. The Ethiopian agricultural area could be exclusively cultivated by making specifically use of so-called green water in combination with already on-going water conservations methods, to attenuate the on-going soil degradation and control the run-off, which already degraded two-third of the land in the Abbay-Teneze valley (Arsano and Tamra, 2005: 16). The use of green water in rain-fed agriculture[80] improves the water productivity in the agricultural sector and leaves the blue water, to those users, who cannot substitute the manually abstracted surface and groundwater for development and production, without an unreasonable cost occurring. Abu- Zeid states, that the average precipitation on the Nile basin states is 7,000 BCM, on the basin itself about 1,660 BCM p.a. are estimated and "…only 84 BCM/year of river flow (blue water) accumulates in the final reaches of the river, downstream of Khartoum" (Abu-Zeid, 2008: 35).

[80] FAO Definition of green water: "... the water supply for all non-irrigated vegetation, including forests and woodlands, grasslands and rain-fed crops" (FAO, 1999).

Table 3: Population, water withdrawal and utilization, GNI for Egypt, Ethiopia, Tanzania

Riparian State	Total population (1000 inhab.)	total internal renewable water resources (10^9 m3/yr)	Dependency ratio (%)	total water withdrawal (10^9 m3/yr)
Egypt 2,1,1,6	74,878	1.8	96.9	68.3
Ethiopia 2,1,1,8	74,189	110	0	5.6
Tanzania 2,1,1,5	38,365	84	9.9	5.2

Riparian State	Irrigation potential (1000 ha)	Area equipped for irrigation (1000 ha)	Access to an improved water source (% of popul.)	Access to improved sanitation facilities (% of popul.)	GNI per capita (USD)
Egypt 1,5	4,420	3,422	98	70	1,260
Ethiopia 1,8	2,700	290	22	13	160
Tanzania 1,5	2,132	184	62	47	340

Data source, year:
1 2007
2 2005
3 2004
4 2003
5 2002
6 2000
7 1998
8 no year specified

Source: Luzi, 2007: 65

The very simplified analysis shows, that it is highly difficult to weigh the different factors. These very strongly connected interdependencies have to be carefully evaluated, based on indicators designed and applied by specialists on their field to reassess material interests. Law is one of these factors, because of its normative force and the independent explanation, and neither inevitable nor inevitably positive persuasive influence (Brunnée and Toope, 2003: 108, 109). However, a complete analysis cannot be conducted, due to the extensive scope, it is rather recommended to further elaborate the topic in further studies.

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تحليل أدوات قانون المياه الدولي فيما يخص القبول السائد في حوض النيل مع التركيز على مصر, أثيوبيا و تنزانيا

إعداد

ماندي زاكولد

المشرف

الأستاذ الدكتور منار فياض

المشرف المشارك

الأستاذ الدكتور لارس ريبّى

ملخـــــــــــــص

إن هذه الرسالة تلقي الضوء على المسائل القانونية المتعلقة بالإدارة المتكاملة للمصادر المائية. كما تقوم بتحليل تفاعل ضفاف النيل تجاه التطورات و المواقف القانونية بناء على أداتين مهمتين من أدوات القانون الدولي للمياه حسب مبادرة حوض النيل و التي تم الإتفاق عليها عام 1992.

إن من الممكن استخدام نهر النيل كمثال كمثال نموذجي للمشاكل التي يتم التعامل معها باستخدام القانون الدولي للمياه و خصوصا فيما يتعلق بالدول التي تشارك في السيطرة على النهر. و خصوصا المبادئ المتعلقة بضرورة عدم إحداث الضرر لأي من هذه الدول بالإضافة إلى المشاركة المنطقية فيما يتعلق بإستغلال النهر.

إن الهدف من هذه الرسالة هو تحديد التغيرات في القانون الإقليمي الذي يحكم العلاقة بين الدول الواقعة أسفل النهر (و بالتحديد مصر) و بين الدول الواقعة أعلى النهر عند منابعه (و بالتحديد إثيوبيا و تنزانيا). عند الأخذ بعين الإعتبار نظرية البناء فإن الدول التي تتشارك النهر في هذا النظام الدولي تخضع للتغيرات الإجتماعية التي تمر فيها الدول و بالتالي تؤثر في إحداث التغيرات في قانون المياه الإقليمي الذي يخص النهر.

و لذلك فإن هذه الرسالة تقوم بتحليل تأثير النظام المؤسسي للدول المشاركة في النهر على تطور القانون الإقليمي الذي يحكم طبيعة هذه المشاركة.